EIR 12/30/92 SLG

Vanguard Chemical Corp.
1110 Washington Ave.
St. Louis, MO 63101

SUMMARY:

This inspection was initiated after reports of several persons becoming ill from using Wilsons Leather Protector, manufactured by Vanguard Chemical Corp.

Vanguard Chemical Corp. is a manufacturer of leather care products mostly for private labels but also under its own Vanguard and Peacock Labels. It's largest customer is Wilsons Suede & Leather, Minneapolis, Minnesota.

Since 1989 it manufactured exclusively for Wilsons and estimated 2 to 3 million 7 ounce aerosol cans of Suede and Leather Protector. The product was formulated of 96% 1,1,1, Trichloroethane, 1% Scotchgard Resin and 3% Carbon dioxide Gas.

In November of 1992 because of government regulations the product was reformulated to eliminate the 1,1,1 Trichloroethane. The product was formulated of 80% Isooctane (Soltrol #10), 1% Vybar, 1% Scotchgard Resin, and 18% Propane Gas. It was packaged in 5 ounce containers as the new propellent weighed less then the carbon dioxide gas.

440,000 cans of this formula were manufactured for Wilson's in November and December 1992.

The firm does no safety testing of it's products.

The firm maintains no complaint files and denies any other safety related complaints.

STRUCTURE AND TYPE OF BUSINESS:

Vanguard Chemical Corporation 1110 Washington Ave., St. Louis, MO 63101 is a Missouri Corporation. It has been in business since 1946 and was first incorporated in 1947. It has always been located in the St. Louis area and has been at two other locations before moving to its present location in the early 1970's.

Ms. Lester Feldman is President and Mr. Barry Feldman is Vice President. The informant, Barry Feldman was unsure which of the other two offices he and his father Lester Feldman hold. Lester Feldman is in ill health and Mr. Barry Feldman basically runs the business.

The firm is described by the informant as "Chemical Specialty". It "Mixes Chemicals" and creates its product line. The product line consist of Leather Care Products. 95% are for private labelers. The rest are marketed under the firm's Peacock and Vanguard Labels.

The firm has no catalog. Customers come to them with requirements and are given samples of stock products or a new product is formulated for the customer's needs. The products are marketed throughout the United States, the largest customer being Wilsons Suede and Leather, Minneapolis, MN. Edison Brothers Shoe Co. and Brown's Shoe Co., both headquartered in St. Louis are also large customers.

PERSON'S INTERVIEWED:

Credentials were presented and a Notice of Inspection was issued to Barry Feldman, Vice President. The entire interview was conducted with him an all information obtained from him except for the formula for the concentrate which was obtained from Tom Trout, the firm's chemist.

COMPLIANCE HISTORY:

The St. Louis Resident Post file is incomplete but reveals the following information:

The firm was initially inspected on 7/11/73. The firm apparently refused to furnish labeling samples or allow access to it's records.

On 8/1/75, a second inspection was attempted with a pre-arranged appointment. The firm refused formula information but agreed to forward labels. After telephone follow-up with no results, on 9/29/75 the firm was put on written notice that it would be reinspected.

On 10/10/75, two investigators obtained labels from the firm.

On 11/18/75, the firm refused formula information by telephone. The firm was reinstated on 12/16/75. Complete formula information was again refused but names of chemical ingredients in each product were provided.

On 1/27/76, the firm telephoned the St. Louis Resident Post threatening to complain to their Senator that someone in the Kansas City Regional Office had attempted to collect a product sample at a consignee and had disparaged the product.

On 2/11/76 the Kansas City Regional Office wrote the firm requesting formula information.

On 6/24/76, the Kansas City Regional Office advised the firm that laboratory analysis of samples of four of their products showed that the firm's labeling did not meet the requirements of the Federal Hazardous Substances Act.

On 10/5/76, the firm was apprised that 3 of the 4 proposed changed labels were now in compliance.

COMPLAINT FILES:

The firm maintains no complaint files or records or any complaints it may receive. Mr. Feldman stated that the only complaint he has ever received is that of shoes being discolored and in those cases he paid the complainants and kept no records.

TESTING:

The firm does no testing of its product except for efficacy testing. It relies on its chemical suppliers recommendation and expects its customers to do their own testing.

LABELING/PRODUCT INFORMATION:

The firm had no product catalog. Mr. Feldman agreed to provide copies of all product labels and formulas but stated that this would take sometime to compile and do to personal problems and time taken up by the problem of the Wilsons Leather Protector, it might be several weeks before he can get this done.

LABELING AND FORMULA-WILSON'S LEATHER PROTECTOR:

The product is marketed in a 5 ounce silkscreened aerosol can. A copy of this silkscreen specifications for Crown Cork & Seal Co. along with the signed approval sheet was provided and is attached as exhibit one.

The informant states that labeling ideas were obtained from Spray Technology & Marketing Volume 2 No. 5 dated 5/92. A copy of this was provided and is attached as exhibit "2".

The product formula is as follows: 80% Isooctane (Soltrol #10), 1%, Vybar, 1% Scotchgard Resin (FC3537), 18% Propane Gas.

The firm air mixes in a clean 55 gallon drum that previously held Isoocatane, a concentrate of 25 gallons Isoocatane, 12 gallons Scotchgard Resin and 10 gallons Vybar. This is forwarded to Ray Cloud of Cloud Equipment Co. 2733 Hamilton St. Louis, MO 63112 phone (314) 381-8383. There the concentrate is pumped into a thousand gallon tank of Isoocatane and the product canned with a propellent added.

The Soltrol #10 manufactured by Phillips Petroleum is purchased from Chemisphere Corporation, St. Louis, MO. The Vybar is purchased from Petrolight, Tulsa, OK. The Scotchgard Resin is purchased from 3M Corporation headquartered in St. Paul, MN.

Copies of recent purchase invoices for these products are attached as exhibit "3", "4", and "5".

Material Safety Data Sheets for these products are attached as exhibits "6", "7", and "8".

Material Safety Data Sheets for the propane is attached as exhibit "9", and the Vanguard Material Safety Data Sheet for the product itself is attached as exhibit "10".

DISCUSSION WITH MANAGEMENT:

At the time of this inspection, Mr. Feldman had been inandated for 3 days with telephone calls for the media and from consumers. He was quite upset about the problem. He stated that three years ago after his wife had been diagnosed with cancer he had been extra careful about using the safest product possible.

He stated that in 1989 the firm began manufacturing for Wilsons a suede and leather protector which it marketed in a 7 ounce aerosol cans. The formula was as follows: 96% 111 trichloroethane, 1% scotchgard resin, 3% carbon dioxide gas. About 2 to 3 million cans were sold.

In 1992 because of government regulations against 111 trichloroethane, the product was reformulated. 3M Corporation sent a data sheet of products recommended for use as solvents for their resin. (A copy is attached as exhibit "11")

According to the informant only two were not considered carcinogens these being white mineral spirits and Isooctane. Vanguard mixed up sample products using each and sent them to Wilsons. Wilsons preferred the Isoocatane formula as the Mineral Spirit formula took longer to dry and also because the Isoocatane had a lower flash point.

In November the firm began manufacturing this newly formulated product. ~~700,000~~ silkscreen cans were purchased 260,000 remain unused. Therefore 440,000 were sold. All bore the codes C1192 or C1292. (Cloud November 92 and Cloud December 92).

A copy of a representatives sales invoice of the product to Wilsons were provided and is attached as exhibit 12.

Mr. Feldman has sent samples of the 5 ounce can, a controlled sample mixed in the office and samples of individual ingredients to Phillips Petroleum ~~Bartlesville~~, OK for testing (~~Jennifer~~ Galvin).

On Sunday, January 3, 1993, Mr. Feldman sent a telefax attached here to as exhibit "13" to the St. Louis Resident Post.

It states that his wife has recently had a reoccurrence of her cancer and that he will be spending time with her and the labels will be delayed. He also questioned whether the tanning process used by Wilsons Leather suppliers might be reacting to the product in a negative way.

EXHIBIT LIST:

Exhibit "1"- Copy of Silkscreened Label.
"2"- Copy of Spray Technology & Marketing Volume 2 no. 5
"3"- Copy of recent purchase invoice for Soltrol.
"4"- Copy of recent purchase invoice for Vybar.
"5"- Copy of recent purchase invoice for Scotchgard Resin.

Exhibit (cont.)

"6"- Copy of Material Safety Data Sheet for Soltrol.
"7"- Copy of Material Safety Data Sheet for Vybar.
"8"- Copy of Material Safety Data Sheet for Scotchgard Resin.
"9"- Copy of Material Safety Data Sheet for the Propane gas.
"10"- Copy of Material Safety Data Sheet for the Vanguard product as formulated.
"11"- 3M Data sheet for products recommended to be used with their Scotchgard Resin.
"12"- Sales invoice of Leather Protector to Wilsons.
"13"- Telefax.

Sandra L. Glazier
Investigator
St. Louis Resident Post

U.S. CONSUMER PRODUCT SAFETY COMMISSION

NOTICE OF INSPECTION

1. DATE	3. FROM (Area Office and Address)
2. TIME	
____ A.M. ____ P.M.	

4. TO

A. NAME AND TITLE OF INDIVIDUAL

B. FIRM NAME

C. NUMBER AND STREET ADDRESS

D. CITY, STATE AND ZIP CODE

Notice of Inspection is hereby given pursuant to:

- Flammable Fabrics Act (15 U.S.C. 1191 *et seq.*);
- Federal Trade Commission Act (15 U.S.C. 41 *et seq.*);
- Sections 16, 19 and 27 of the Consumer Product Safety Act (15 U.S.C. 2065, 2068 and 2076)
- Section 704(a) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 374(a)) [Authority for inspections in connection with the Poison Prevention Packaging Act of 1970 (15 U.S.C. 1471 *et seq.*)] and/or
- Section 11(b) of the Federal Hazardous Substances Act as Amended (15 U.S.C. 1270(b)).

Refer to the back of this form for a discussion of inspectional authority and for pertinent statutory language.

5. PURPOSES OF INSPECTION AND NATURE OF INFORMATION TO BE OBTAINED AND/OR COPIED.

The purpose of this inspection is to obtain information: to review and obtain copies of items including but not limited to records, reports, books, documents; and labeling; and to obtain samples, in order to enforce or determine compliance with the Acts administered by the Consumer Product Safety Commission.

6. FREEDOM OF INFORMATION REQUIREMENTS

Those from whom information is requested should state whether any of the information submitted is believed to contain or relate to a trade secret or other matter which should be considered by the Commission to be confidential and whether any of the information is believed to be entitled to exemption from disclosure by the Commission under the provisions of the Freedom of Information Act (15 U.S.C. 552). Any statement asserting this claim of confidentiality must be in writing, and any request for exemption of the information from disclosure must be made in accordance with the Commission's Freedom of Information Act regulations. 16 CFR Part 1015.

7. SIGNATURE (Authorized CPSC Official)

CPSC Form 296 (9/79)

* U.S. GOVERNMENT PRINTING OFFICE: 1991—618-102

92 4967 #1940 CROWN CORK&SEAL 7-6-92

5oz WILSON-LEATHER PROTECTOR

TOP

#FW 5233 202 x 509 S.W.

RED BLACK F J

WILSONS

LEATHER
PROTECTOR

MAKES SUEDE AND LEATHER
STAIN AND WATER RESISTANT

KEEPS DIRT ON THE SURFACE
FOR EASY WIPE-OFF

NEVER CHANGES COLOR OR
ADVERSELY AFFECTS MATERIAL

CONTAINS NO SILICONE

CONTAINS NO OZONE
DEPLETING CHEMICALS

CAUTION: VAPOR MAY BE HARMFUL
CONTENTS UNDER PRESSURE
READ CAREFULLY OTHER CAUTION
ON BACK PANEL

NET WT. 5 OZ.

NO FLUOROCARBONS

[illegible]

[illegible]

KEEP OUT OF REACH OF CHILDREN

MANUFACTURED FOR

WILSONS

[illegible]

4 00189 96003 2

B/P #1-799990-D

Ex 1
SKG
12-30-92

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CHANGES ARE COSTLY
READ CAREFULLY BEFORE APPROVING

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CAUTION:

CUSTOMER MUST ASSUME ALL RESPONSIBILITY FOR COMPLIANCE OF DESIGN WITH LOCAL, STATE AND FEDERAL LABELING LAWS AND REGULATIONS.

COLORS _____ SPELLING _____

PUNCTUATION _____ DESIGN _____

APPROVAL DATE 7/16 APPROVED CP / MAE / GB

ENG. NO. FW5283 DATE JUL 14 1992

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Industry analysis of this record boom

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Cover

Once again, we talked to the experts to prepare our comprehensive report on the Hair Care industry. Both marketers and suppliers cooperated with us for our article, beginning on page 24. A related story, on hair sprays in Europe, appears on page 22 and we've included some formulations (on page 28). Cover photo by Editor Mike SanGiovanni.

ATTN: CAMILLE PEARSON

EXH SLE 12-30-92

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Attn- Camille Benson

plete labels, under the "duty to warn" and other dictums. Even though labels may comply with all regulatory requirements, marketers may still be held accountable for failure to warn consumers.

CONTENT

Many firms, when grooming a new product, carefully review the labeling on competitive or similar products, considering wording, placement, conspicuousness, and other details. Normally, this process of label comparison continues indefinitely, since labels are often revised as the result of new regulations, environmental considerations, results of lawsuits and other activities.

Since many words, logos, phrases and designs are trademarked, the "me too" or "knock-off" product marketers must be careful to avoid legal pitfalls by copying a target label too closely. Because this is a growing problem for major marketers, they are reacting more vigorously against plagiaristic predators.

The wording on labels may be divided into three areas: general information, complementary details and necessary precautions or warnings. In the first, the labeling copy must disclose the name and principal business address of the marketer. A zip code of at least five digits must be included, but the street or post office box number may be omitted. The identity—brand name and intended function(s)—must be established. The net weight will normally appear at the base of the principal panel fo... aerosols, and must be the amount that can be delivered under consumer use conditions. Type size from 6 to 12 points is normally used. The standard notation is in Avoirdupois ounces (28.34 g units), such as "NET WT. 2.5 OZ." or "NET 2.5 AV.OZ."

If the fill is greater than 16 Av.oz. a supplementary statement is required: by example, "NET WT. 19 OZ. (1 LB. 3 OZ.)." Supplementary information may also include a statement of product volume, in fluid ounces (29.57 mL units), and/or the product weight or volume in the metric system.

In Canada, the CP&LR requires aerosols to be labeled in mL of contained product, in the specific cases of shave creams, hair sprays and underarm deodorants. The net quantity of all other aerosols is to be declared by contained weight in grams—ingredients plus propellant. The content must be declared to three significant figures, except that, for products containing less than 100 mL or 100 g, it is not necessary to place a zero after the decimal point.

Like the regulations in many parts of Europe, some products are restricted to certain fill sizes and containers. For example, shave cream and hair spray aerosols must contain 1, 2, 3,...25, 50, 75, 100, 150, 200, 250,...400, 500,...mL; and aerosol deodorants must contain 1, 2, 3,...25, 50, 75, 100, 150, 200, 250, 300, 400, 500,...mL. The character height of the numerical part of the contents declaration is stipulated according to principal panel surface area. For areas of 5 to 40 square inches (32 to 258 cm^2) the minimum height is 1/8 inch (3.2 mm). Below this, 1/16 inch (1.6 mm) minimum height is acceptable.

The coding of aerosols is not regulated as of this moment, but certain states are moving toward open date coding so that they can determine the manufacturing date without contacting the marketer. Questions of regulatory compliance, such as VOC content and CFC or HCFC content have given them this incentive.

A special situation exists with aerosol drugs or pharmaceuticals where the active ingredient may deteriorate as much as 10% within three years at ambient temperatures. In such instances, the FDA will require an expiry date to be inscribed on the label or container.

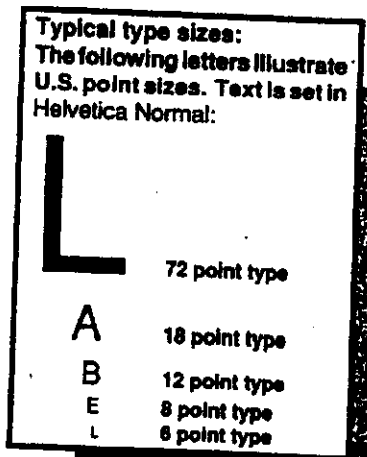
The code is generally placed on the bot... of an aerosol can, using a Video-Jet or ...ilar ink-based device. Other coders ...y imprint the code near the outer rim ...he valve cup, on the top or bottom ...ble seam, or laser burn it into the ...ography, the base coat or alternatively ...orated area, normally near the top of ...body wall. In a few cases, paper labels ... be code notched or code punched. ...rmally, the code will describe the date ... location of the production run, as a ...imum. A common practice is to use a ...gorian based code, where the first ...racter, usually a letter indicating the ...r, is followed by a three-digit ensemble ...icting the day of that year. Some firms ... private, and so they add an arbitrary number (say 400) to the code, or simply reverse the first and third digits. A final number or letter may indicate the production shift. Where the product is produced at two or more locations, the code will contain an added designator to identify the manufacturing site. Batches are often identified, either as a separate code or an add-on to the standard code.

In the case of economic poisons (or pesticides) the U.S. EPA requires their EPA Registration Number and EPA Establishment Number on each immediate container. An example is:

EPA Reg. No. 11715-157-1731
EPA Est. No. 11715-TN-01

The 11715 number identifies the registrant and the 157 designator indicates the (consecutive) formulation number of that registrant. The TN signifies the state of Tennessee, and is followed by an 01 that shows the producing location to be the first one in Tennessee operated by the registered manufacturer.

In the case of pesticides, the U.S. EPA requires a highly precise description of the chemical identity and percentages of the active ingredients, followed by a rather redundant statement that the inert ingredients make up the remaining percentage. Any inert ingredients considered



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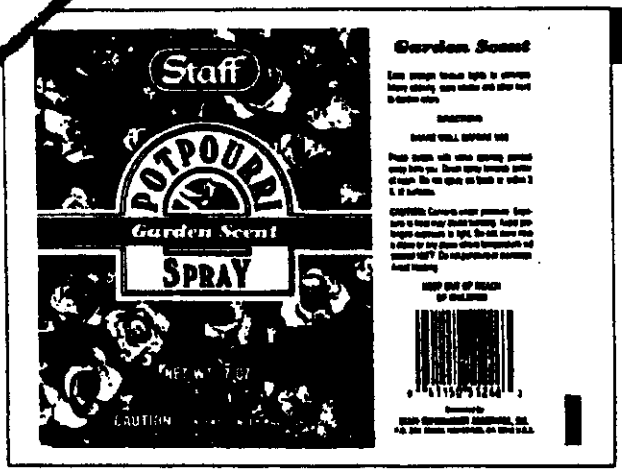
Attn. Camille Pearson



to be chronically hazardous, or to form such products, or to pose environmental problems, have to be described. One of these is sodium nitrite, a corrosion inhibitor which can produce a few parts per million of various N-nitrosoamines during a year-long intimate contact with certain amines.

Some N-nitrosoamines are considered to be mutagens or carcinogens. Because traces of amino-acids and other amines may exist in the mouth, which might react with the nitrite ion (if inhaled) to produce part-per-trillion or part-per-quadrillion levels of N-nitrosoamines in the body, the EPA has felt a duty to identify this ingredient.

A typical active ingredient is labeled as:

Cyano (3-phenoxyphenyl) methyl 4-chloro-alpha-(1-methylethyl) benzeneacetate 0.200%*

*Licensed under U.S. Patent No. 4,062,968 of Sumitomo Chemical Company.

This scientific jargon is totally incomprehensible to consumers, including nearly all graduate chemists and doctors. A highly specialized library of insecticide active ingredients, their compatibilities, toxicological profiles, environmental aspects and other data would be required—plus reading time—for a specialist to glean any benefit out of this information. Meanwhile the "obfusticated" consumer vainly tries to make value comparisons between insecticides by comparing the total percentage of active ingredients in one product with that of another. (Any collation of label claims, while in the store, would be much too time consuming.)

The U.S. EPA must review and approve all proposed label copy, as well as any subsequent label changes, for pesticides. Currently, Applications for Registration can amount to hundreds of pages and take the agency 18 to 36 months to process.

For foods, drugs and cosmetics, the U.S.A. and two other countries currently require that the label carry the formulation in decreasing concentration of ingredients by weight in the U.S.A.; by volume in the other countries. No quantification need be given. In the order of listing, those ingredients present at less than one percent may be randomized. The nomenclature must be that as specified in the GRAS (Generally Recognized As Safe) listing for food additives, and in the CTFA International Cosmetic Ingredients Dictionary (Fourth Edition; 1991) and later supplements. Because of an FDA ruling in OCT-1977, colors are now listed as "FD&C Certified Colors", or individually as "FD&C Yellow #5" (etc.) instead of "color". Some of the FDA background related to skin sensitization. For example, the agency felt that "FD&C Yellow #5" could cause skin sensitization where consumers also used acetylsalicylic acid (aspirin) for headaches, arthritis or defense mechanisms.

In the case of pharmaceutical aerosols, the formulation must be disclosed first as "Active Ingredient(s):"—followed by a listing of these items in decreasing percentage—and then the words "Other Ingredients:" or "In a Cosmetic Base Containing:" followed by a list of such items in decreasing magnitude. As before, ingredients present at less than one percent may be scrambled.

Because the FDA has said only that the ingredient statement must appear on an appropriate panel, provided it is conspicuous at the time of purchase, marketers have generally elected to utilize 4, 4.5, 5 or 6 point type (1.4, 1.6, 1.8 or 2.1 mm high—such as these X's, shown respectively in actual point size: x x x x). Placement is generally on a side or back panel. Words are usually in upper case letters, and consistent in size with directions and warning statements.

A number of complementary details and comments may appear on labels. They include notations for making value judgements and using the product properly, safely and economically. Directions for safe and correct use normally occupy a significant portion of the label. They may also include actions to be taken following use, particularly in the case of automotive products, or responses to possible valve clogging.

Directions for shaking the can before use may often be repeated on the can dome, for added emphasis.

Product warranties, money-back guarantees, an 800-number for questions or comments, surety promises, U.S. patent coverage, trademarks, product hallmarks, bonus pack advice, one-third more, cents-off, and notice of companion or flanker products may also be given.

Specific warning statements have been mandated for aerosols since the original Federal Hazardous Substances Labeling Act of 1961—now changed very slightly and incorporated into the CPSC (FHSA) regulations (Ch. II, C, 1500.130). Today, warning statements are required on every aerosol in order to adequately advise consumers concerning potential hazards. Where label warnings are not considered sufficient to protect the user, the EPA and CPSC have required that other actions be taken, such as the use of child resistant closures or reformulation.

The FDA has not required child resistant closures for aerosols under their aegis, but has, in rare instances, required reformulation. Perhaps the most classic example of the latter has been their edict of about 1975, requiring the elimination of zirconium containing ingredients from aerosols. This sweeping statement was really aimed at the removal of zirconium aluminum chlorohydrate glycine complex (ZAGS) from a singular product: an antiperspirant--where it provided unparalleled efficacy, but caused minor and ephemeral edemas in the lungs of the Rhesus monkey. However, it served to eliminate foam-type and gel-type poison plant sprays that depended on zirconium oxycarbonate, as well as several other products.

Warnings are used to help prevent misuse of the product. They include a description of the physical, chemical, toxicological and flammability hazards, as applicable.

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Attn: Camille Pearson

More general statements are also required, such as "Keep out of the reach of children" or the practical equivalent. For products especially designed for children, the statement is modified by adding "except under adult supervision."

Other children's products have the alternative statement: "Use this product only as directed and always under adult supervision." Usually, the children's statement, as it is called, is emphasized by the use of upper case printing, heavier printing or somewhat larger printing. Some products carry the warning on both the front and subsidiary panels.

For pesticides the U.S. EPA regulations [Ch.I, 162.10(h)&(i)] provide required wording for those aerosols where the only hazard is that the contents are under pressure. The principal panel (near the bottom) must carry the signal word, the statement of the primary hazard (if any), the children's statement, and the instruction to read carefully any cautionary information placed elsewhere. The signal word is "Warning" or "Caution," used interchangeably. Two examples will illustrate:

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

WARNING:

KEEP OUT OF REACH OF CHILDREN

Contents under pressure.
Read warning on back panel.

For typical labels, the area of the principal display panel will be from 15 to 30 square inches (96.8 to 193.5 cm²). For such aerosol cans, the required signal word must be in 14 point (4.94 mm high) capitals, the children's statement must be in 10 point (3.52 mm high) lettering and the precautionary statement must be at least 6 point (2.12 mm high) letters (the above samples are in those sizes). For reference purposes the principal panel of a 202x700 can is 17.5 square inches (113 cm²), for a 211x604 can this is 18.9 square inches (122 cm²), and for a 300x709 can the area is 25.6 square inches (165 cm²). Marketers should periodically measure the type size of their aerosol cans to assure continuing compliance.

Continuing with the simplistic aerosol, whose only hazard is that the contents are under pressure, the required subsidiary panel language is:

CAUTION: Contents under pressure.
Do not use or store near heat or open flame.
Do not puncture or incinerate container.
Exposure to temperatures above 130°F may cause bursting.

The U.S. EPA requires additional warnings if the contents possess other hazards. These are best gleaned from the regulations themselves, but may otherwise be obtained from competitive labels, label specialists; pesticidal concentrate suppliers and books. For a product that is "Extremely Flammable" by the standard test methods, the subsidiary panel language may read:

CAUTION: Extremely Flammable.
Do not use or store near fire, sparks or heated surfaces.
Contents under pressure.
Do not puncture or incinerate container.
Exposure to temperatures above 130°F may cause bursting.

Where a product has multiple hazards the precautionary statements may be divided into sections, such as "Hazards to Humans and Domestic Animals" (with Statement of Practical Treatment) and "Physical or Chemical Hazards." Precautions for storage and disposal may also be included.

For household products, the CPSC exercises labeling authority under the Federal Hazardous Substances Act, which they have administered since 1972. For an aerosol whose only hazard is that the contents are under pressure, the principal panel must carry the signal word (WARNING or CAUTION--interchangeably) the statement of the principal hazard, or hazards, and instructions to read carefully any cautionary information placed elsewhere on the label. This can be illustrated by two examples:

CAUTION: CONTENTS UNDER PRESSURE.
READ PRECAUTIONS ON BACK.

WARNING: CONTENTS UNDER PRESSURE.
Read carefully other cautions.

The signal word and statement of hazard must be in capital lettering. The signal word must not be less than 18 point type (0.25 inch or 6.35 mm high) and the statement of hazard must be not less than 12 point type (0.17 inch or 4.23 mm high), unless the label size is too small to reasonably manage such large type sizes. All other precautionary information must be in at least 10 point type (0.14 inch or 3.53 mm high)—again unless the label area is too small, in which the size can be decreased to not less than 6 point type (0.083 inch or 2.12 mm high). Because of the built-in modest flexibility of the regulations, it is not uncommon to see signal words that are 14 point type, and statements of hazard that are as small as 6 point type. The precautionary statements on a subsidiary label panel may be as brief as:

CAUTION: CONTENTS UNDER PRESSURE.
Do not puncture or incinerate can.
Do not expose to heat or store at temperatures above 120°F.
KEEP OUT OF REACH OF CHILDREN.

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attn Camille Pearson

In the case of a product that is flammable, by the standard test methods, the statement on the principal panel becomes:

.. CAUTION: FLAMMABLE. CONTENTS UNDER PRESSURE.
.. Read carefully other cautions.

and for the subsidiary panel:

CAUTION: FLAMMABLE. CONTENTS UNDER PRESSURE.
Keep away from heat and open flame.
Do not puncture or incinerate can.
Do not expose to heat or store at temperatures above 120°F.
Use in well ventilated areas.
KEEP OUT OF REACH OF CHILDREN.

Since the word "Flammable" can be printed in lettering as small as 6 point type size, and since the follow-up language is relatively reasonable and innocuous, it follows that ascribing a "Flammable" warning to a product will have relatively little consumer impact. This has been proved by a major marketer in side-by-side testing. The purchasing rate for the "Flammable" product was slightly higher than that for the equivalent placebo product with the "Flammable" precautionary language deleted.

For CPSC aerosols the label of products having special hazards must carry the name of the hazardous substance(s). As a consequence, terms such as "Contains toluene." or "Contains sodium hydroxide." may be seen on subsidiary panels--or the main panel, at the marketer's discretion.

The signal word "DANGER" must be used for products which are extremely flammable, corrosive or highly toxic. There must also be an affirmative statement next to the signal word, such as, "Extremely Flammable," "Causes Burns" or "Vapor Harmful." For an "Extremely Flammable" aerosol, the statement on the principal panel becomes:

DANGER: EXTREMELY FLAMMABLE.
Read carefully other cautions.

and for the subsidiary panel:

DANGER: EXTREMELY FLAMMABLE. CONTENTS UNDER PRESSURE.
Keep away from heat, sparks or open flame.
Use with adequate ventilation.
Do not puncture or incinerate can.
Do not expose to heat or store at temperatures above 120°F.
Contains (flammable substance).
KEEP OUT OF REACH OF CHILDREN.

152

SPHERE CORP.

2101 CLIFTON AVE. ST. LOUIS, MISSOURI 63139-3085 (314) 644-1300

INVOICE

37 INVOICE NO 944809 DATE 12/22/92

) CHEMICAL
ASHINGTON
'IS, MO 63101

SHIP TO CLOUD EQUIPMENT CO.
2733 HAMILTON
ST. LOUIS, MO 63133

UST. ORDER	CH ORD	ORDERED	SHIPPED VIA	TERMS	SLM
944885		12/22/92	OUR TRUCK	NET 60 DAYS	S

PRODUCT CODE	DESCRIPTION	UNIT SHIPPED	B/O	PRICE PER UNIT $	EXTENDED PRICE
SOL 10	SOLTROL 10	970.840	G	1.8500	1,796.05

EX 3
SLC
12-30-92

ICE IN TOWN, CALL US FOR
HICAL NEEDS - 644-1300.
N DELIVERY TICKET

ORDER NET:	1,796.05
SALES TAX:	0.00
CASH DEL/FREIGHT:	0.00 0.00
ORDER TOTAL:	1,796.05
PAYMENT REC'D.:	0.00
BALANCE DUE:	1,796.05

753

C

INVOICE

DATE 10/16/92

INVOICE 0057772

PETROLITE POLYMERS DIVISION
6910 EAST 14th STREET
TULSA, OK 74112

REMIT TO:
PETROLITE CORPORATION
P.O. BOX 94190
TULSA, OK 74194

TERMS NET 30 DAYS
OUR ORDER 0075501

P.O. NO. 3615

CUSTOMER CODE 2216680101

SOLD TO
VANGARD CHEMICAL CORPORATION
1110 WASHINGTON AVENUE
ST LOUIS, MO 63101

12-23-92 Paid Check #

CONSIGNED TO
VANGARD CHEMICAL CORPORATION
1110 WASHINGTON AVENUE
ST LOUIS, MO 63101

F.O.B. KILGORE TX

86187

B/L NUMBER K-11126

ROUTE VIA OVERNITE TRANSPORTATION - COLLECT

PRODUCT	BATCH NUMBER	QUANTITY	UNIT PRICE	TOTAL In U.S.A. Funds
2027700115 VYBAR 825 POLYMER DRUMS	5758500	1,140 /LB	$2.9850 /LB	$3,402.90

PLEASE PAY THIS AMOUNT --------> 3,402 90

FY 4
SALE 12
12-30

McAlister Printing, Kilgore, Texas 0-8-88

184

INVOICE

PAGE 1 OF 1 1

PURCHASE ORDER..3463

INVOICE NO..CG25075
TYPE.....ORIGINAL
DATE.....09/30/92

DIRECT INQUIRIES TO:
CREDIT DEPT/3M (WI).
908 NORTH ELM STREET
HINSDALE IL 60521

PHONE NO..708-920-4236

CUST REF NO.....BELOW

ORDER DATE.....09/16/92
SHIP DATE.....09/30/92

PARTIAL ORDER.....NO

TERMS OF SALE....
NET 30 DAYS
TERMS DATE..... 09/30/92

DUNS.....07-591-0935
FED ID.....41-0417775
SALES REP.....V7406-1

Q03111

ACCOUNT NO.
CHARGE TO: XCV4095 →
SHIP TO:

SAME
1110 WASHINGTON

VANGARD CHEM CORP
1110 WASHINGTON
ST LOUIS MO 63101-1157

QUANTITY	UNIT	UPC NO.		UNIT PRICE	TOTAL AMOUNT
1140	LBS	3463 CG25075 05113510242	FC-3537 3M BRAND PROTECTOR 190 LB 30 GAL DRUM	21.00	23,940.00
		SER LOT NUMBER(S) 511			
		QUESTIONS REGARDING THIS INVOICE CONTACT SUE FOLGER 612-736-9617			
		EXEMPTION CERTIFICATE:11120576	XR		
***		SHPD 09/30 FROM-SA&CD; DECATUR VIA-CETR	B/L-6H 247645		6-PCS
***			1,380-LBS		
***					

TOTAL PAYMENT DUE 10/30/92 | TOTAL PAYMENT 23,940.00

1 SF

CG AC

10129385

Pd. ck# 86635
11-30-92

DETACH AND RETURN WITH PAYMENT

REMITTANCE ADVICE

XCV4095
VANGARD CHEM CORP
1110 WASHINGTON
ST LOUIS MO 63101-1157

REMIT TO

3M XCV4095 (WI)
P.O. BOX 269-F
ST LOUIS MO 63150-0269

INVOICE AMOUNT

☐ MARK BOX IF ADDRESS CHANGE
NOTE CHANGE ON REVERSE SIDE OF ADVICE

INVOICE NO.	DATED	TERMS DATE	TERMS OF SALE
CG25075	09/30/92	09/30/92	NET 30 DAYS

TOTAL PAYMENT..... 23,940.00

AMOUNT REMITTED

CG25075

V7406-1 BPK CG SF

10129385 3463

15

August 16, 1991

USA and WORLDWIDE

Material Safety Data Sheet

SOLTROL® 10

PHILLIPS 66 COMPANY
A Division of Phillips Petroleum Company
Bartlesville, Oklahoma 74004

PHONE NUMBERS
Emergency:
Business Hours (918) 661-3865
After Hours (918) 661-8118
General MSDS Information:
(918) 661-8327
For Additional MSDSs: (918) 661-5952

A. Product Identification

Synonyms: Mixture
Chemical Name: Mixture
Chemical Family: Isoparaffins
Chemical Formula: Mixture
CAS Reg. No.: Mixture
Product No.: APO100

EX 6
SNC
12-30-92

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it is subject to all applicable provisions and restrictions of 40 CFR, section 721 and 723.250.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
2,2,4-Trimethylpentane	540-84-1	70	NE	NE
Related C7 and C8 Isoparaffins	NA	30	NE	NE

Pg 1 of 6

C. Personal Protection Information

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required unless needed to prevent respiratory irritation.

Eye Protection: Use safety glasses with side shields or face shield if splashes could occur.

Skin Protection: Use rubber, neoprene or vinyl alcohol gloves.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Avoid breathing vapors or mists. Avoid contact with eyes, skin or clothing. Use with adequate ventilation. Wash thoroughly after handling. Launder contaminated clothing before reuse. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

Store and use in a well-ventilated area. Store in a tightly closed container. Provide means for controlling leaks and spills. Keep away from heat, sparks, and flame. Bond and ground during liquid transfer.

E. Reactivity Data

Stability: Stable

Conditions to Avoid: Not Applicable

Incompatibility (Materials to Avoid): Oxygen or strong oxidizing materials.

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Not Applicable

Hazardous Decomposition Products: Carbon oxides may form when burned.

F. Health Hazard Data

Recommended Exposure Limits:

The Company recommended exposure limit is 400 ppm.

Acute Effects of Overexposure:

Eye: May be mildly irritating.

Skin: May be mildly irritating.

Inhalation: May cause headache, dizziness, nausea, unconsciousness. Inhalation LC50 > 15000 ppm (rats).

Ingestion: May irritate stomach and intestines. May be aspirated into lungs if swallowed, resulting in pulmonary edema and chemical pneumonitis.

Subchronic and Chronic Effects of Overexposure:

No known applicable information.

Other Health Effects:

Isoparaffinic hydrocarbons have caused injury in male rats only. No comparable health hazard for kidney disease is known to occur in humans.

Health Hazard Categories:

	Animal	Human
Known Carcinogen	___	___
Suspect Carcinogen	___	___
Mutagen	___	___
Teratogen	___	___
Allergic Sensitizer	___	___
Highly Toxic	___	___

	Animal	Human
Toxic	___	___
Corrosive	___	___
Irritant	___	___
Target Organ Toxin	_X_	_X_
Specify - Lung-Aspiration Hazard		

First Aid and Emergency Procedures:

Eye: Flush eyes with water for fifteen minutes. If irritation develops, seek medical attention.

Skin: Immediately wash skin with soap and water. If irritation develops, seek medical attention.

Inhalation: Remove from contaminated air. If illness or adverse symptoms develop, seek medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

G. Physical Data

Appearance:	Colorless liquid
Odor:	Mild
Boiling Point:	202-218F (94-103C)
Vapor Pressure:	2.1 psia (113 mm Hg) @ 100F (38C)
Vapor Density (Air = 1):	>1
Solubility in Water:	Negligible
Specific Gravity (H2O = 1):	0.7 @ 60/60F (16/16C)
Percent Volatile by Volume:	100
Evaporation Rate (Butyl Acetate = 1):	<1
Viscosity:	Not Established

H. Fire and Explosion Data

Flash Point (Method Used):	13F (-11C) (TCC, ASTM D56)
Flammable Limits (% by Volume in Air):	LEL - Not Established UEL - Not Established
Fire Extinguishing Media:	Dry chemical, foam, carbon dioxide (CO2).
Special Fire Fighting Procedures:	Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if exposure conditions warrant. Water fog or spray may be used to cool exposed equipment and containers. Do not spray water directly on fire - product will float and could be reignited on surface of water.
Fire and Explosion Hazards:	Carbon oxides and various hydrocarbons formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along the ground away from the handling site. Flash back along the vapor trail is possible.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Keep out of water sources and sewers. Protect from sources of ignition. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal containers using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or place in RCRA permitted waste management facility.

J. DOT Transportation

Shipping Name: Naphtha
Hazard Class: 3 (Flammable liquid)
ID Number: UN 1255
Packing Group: II
Marking: Naphtha, UN 1255
Label: Flammable liquid
Placard: Flammable/1255
Hazardous Substance/RQ: Not applicable
Shipping Description: Naphtha, 3 (Flammable liquid), UN 1255, PG II
Packaging References: 49 CFR 173.150, 173.202, 173.242

K. RCRA Classification - Unadulterated Product as a Waste

Ignitable (D001)

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

_X_ This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

___ Combustible Liquid
___ Compressed Gas
___ Flammable Gas
_X_ Flammable Liquid
___ Flammable Solid
___ Flammable Aerosol
___ Explosive
_X_ Health Hazard (Section F)
___ Organic Peroxide
___ Oxidizer
___ Pyrophoric
___ Unstable
___ Water Reactive

___ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

MATERIAL SAFETY DATA SHEET

PETROLITE CORPORATION
369 MARSHALL AVE.
ST.LOUIS MO 63119 U.S.A

REVISION DATE: 04/10/90
EMERGENCY PHONE: 1-314-961-3500
CHEMTREC EMER NO: 1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION

PRODUCT: VYBAR 825 POLYMER MSDS#: SP000246 LABEL: N/A

SHIPPING NAME: NOT HAZARDOUS PER D.O.T. CFR TITLE 49

CHEMICAL DESCRIPTION
POLYMERIZD C>10 ALPHA ALKENES [68527-08-2]

SECTION 2 HAZARDOUS INGREDIENTS

None as defined under the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Hazardous Products Act (S.C. 1987, c. 30(Part I)).

SECTION 3 PHYSICAL DATA

SPECIFIC GRAVITY: @60 F ~0.84 VOLATILITY: NIL
VAPOR PRESSURE: Not Determined SOL. IN WATER: Insoluble

APPEARANCE AND ODOR: Amber liquid. Little or no odor.

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >350 F FLAMMABLE LIMITS: Not Established

FLASH METHOD:
COC ASTM D-92

EXTINGUISHING MEDIA:
Use water spray or fog, alcohol-type foam, dry chemical or CO2.

FIRE FIGHTING PROCEDURES:
Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Non-flammable. Keep fire-exposed containers cool using water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None known.

CONTINUED ON PAGE: 2

MATERIAL SAFETY DATA SHEET

CONTINUATION OF SP000246

SECTION 5 HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

INHALATION:
Not expected to be a problem under normal conditions of use.

SKIN AND EYE CONTACT:
Not expected to be a problem under normal conditions of use. May produce mild irritation on prolonged contact with skin or eyes. Not expected to be absorbed through the skin in significant quantities.

INGESTION:
May be harmful if swallowed. May cause gastrointestinal disturbances.

EMERGENCY AND FIRST AID PROCEDURES:
Wash skin thoroughly with soap and water. Launder clothing before reuse. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician. If inhaled, remove to fresh air and administer oxygen if necessary. If ingested, consult a physician.

SECTION 6 REACTIVITY DATA

STABILITY:
Stable under normal conditions of storage and use.

INCOMPATIBILITY:
Keep away from strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
None known.

HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 7 SPILL AND LEAK PROCEDURES

IF MATERIAL IS SPILLED OR RELEASED:
Small spill - Dilute with water and absorb on paper, cloth or other material.
Large spill - Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Flush residues to sewer. Use personal protective equipment as necessary.

CONTINUED ON PAGE: 3

RANDY STEEN ATTN.

162

CONTINUATION OF SP000246

DISPOSAL METHOD:
Secure container and take to an approved waste disposal site. Dispose of residues in accordance with applicable waste management regulations.

DECONTAMINATION PROCEDURES:
Not appropriate.

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:
Respirator use is not expected to be necessary under normal conditions of handling. In emergency situations, use of a NIOSH-approved respirator may be required.

VENTILATION:
General ventilation should be provided to maintain ambient concentrations below nuisance levels.

PROTECTIVE CLOTHING:
Chemical-resistant gloves and chemical goggles should be used to prevent skin and eye contact.

SECTION 9 SPECIAL PRECAUTIONS

Avoid breathing of vapors and contact with eyes, skin or clothing. Hazardous product residue may remain in emptied container. Do not reuse container without commercial cleaning or reconditioning.

Although the information and recommendations set forth herein are believed to be correct as of the date hereof, Petrolite makes no representations to the accuracy of such information and recommendations. It is the user's responsibility to determine the suitability and completeness of such information and recommendation for its own particular use. Petrolite shall not be responsible for any direct, indirect, incidental or consequential damages of whatsoever nature resulting from the publication, use of or reliance upon such information and recommendations.

PETROLITE EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF EVERY KIND AND NATURE INCLUDING THOSE OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT, THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN, OR ANY USE OR RELIANCE THEREON.

03-84
4882

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

ATTN
~~MARLE BARNETT~~
RANDY STEEN

MATERIAL SAFETY
DATA SHEET

3M

DIVISION: PROTECTIVE CHEMICAL PRODUCTS DIVISION
TRADE NAME:
FC-3537 3M Brand Protector

3M I.D. NUMBER: 98-0211-6411-0 98-0211-6412-8 98-0211-6413-6

ISSUED: APRIL 15, 1992
SUPERSEDES: MARCH 11, 1992
DOCUMENT: 10-4360-3

1. INGREDIENT

	C.A.S. NO.	PERCENT
HEPTANE	142-82-5	57.0
FLUOROCHEMICAL POLYMER +(5664P)	TradeSecret	25.0
ETHYL ACETATE	141-78-6	18.0

2. PHYSICAL DATA

BOILING POINT:	ca. 93.00 C
VAPOR PRESSURE:	48.1000 mmHg Calc. @ R.T.
VAPOR DENSITY:	ca. 3.20 Air = 1 Calc. @ R.T.
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	slight
SP. GRAVITY:	ca. 0.800 Water = 1
PERCENT VOLATILE:	75.00 %
VOLATILE ORGANICS:	N/D
VOC LESS H2O & EXEMPT SOLVENT	N/D
pH:	N/A
VISCOSITY:	N/D
MELTING POINT	N/D

APPEARANCE AND ODOR: Clear, light yellow liquid.

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	-13.00 C
ABEL	
FLAMMABLE LIMITS - LEL:	N/D
FLAMMABLE LIMITS - UEL:	N/D
AUTOIGNITION TEMPERATURE:	N/D

EXTINGUISHING MEDIA:
Water Fog, CO2, Dry Chemical, Alcohol Foam
SPECIAL FIRE FIGHTING PROCEDURES:
Full protective clothing including self-contained breathing apparatus, coat, pants, gloves, boots, and bands around legs, arms and waist should be provided. No skin surface should be exposed.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Toxic by-products, including HF, may be formed.
NFPA-HAZARD-CODES: HEALTH 3 FIRE 4 REACTIVITY 0
UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY - MATERIALS TO AVOID:
Not Applicable

Abbreviations: N/D - Not Determined N/A - Not Applicable

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

03-84
4883

ATTN
~~MARIE BARNETT~~
RANDY STEEN

MATERIAL SAFETY
DATA SHEET

4. REACTIVITY DATA (continued)

HAZARDOUS POLYMERIZATION: Will Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition may produce toxic materials including HF.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Observe precautions from other sections. Extinguish all ignition sources. Ventilate. Contain spill. Cover with absorbent material. Collect spilled material. Place in an approved metal container, and seal.

RECOMMENDED DISPOSAL:
Mix with flammable material and incinerate in a permitted hazardous waste incinerator. Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: D001 (Ignitable)

ENVIRONMENTAL DATA:
Chemical oxygen demand(COD): 0.6g/g; Biochemical oxygen demand(BOD): 20-day :0.22g/g; 96hr LC50 Fathead minnow: 750(560-1000)mg/L; 48hr EC50 Waterflea: 910 mg/L.; Activated sludge respiration inhibition (OECD METHOD 209) >1000 mg/L following 30 min.and 3 hr exposure. No observable effect level(NOEL): Fish 180mg/L.; Water flea 56 mg/L.

SARA HAZARD CLASS:
FIRE HAZARD: Yes **PRESSURE:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush with plenty of water. Call a physician.

SKIN CONTACT:
Wash affected area with soap and water.

INHALATION:
If symptoms occur, remove person to fresh air. If symptoms continue, call a physician.

IF SWALLOWED:
DO NOT INDUCE VOMITING. Give copious amounts of water. IMMEDIATELY call a physician or Poison Control Center.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Safety Goggles

SKIN PROTECTION:
Rubber Gloves

Abbreviations: N/D - Not Determined N/A - Not Applicable

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

03-84
4884

ATTN: MARGE BARNETT
RANDY STEEN

MATERIAL SAFETY
DATA SHEET

3M

7. PRECAUTIONARY INFORMATION (continued)

VENTILATION PROTECTION:
Local exhaust ventilation is recommended where the material becomes airborne.

RESPIRATORY PROTECTION:
NIOSH approved respirator with organic vapor cartridge and particulate filter.

PREVENTION OF ACCIDENTAL INGESTION:
Not determined.

RECOMMENDED STORAGE:
Not determined.

FIRE AND EXPLOSION AVOIDANCE:
Not determined.

OTHER PRECAUTIONARY INFORMATION:
Keep away for heat, sparks and open flames. Use only in well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid breathing vapors, spray or mist. Avoid eye and skin contact. Wear eye protection and protective gloves where contact may occur. Keep container closed when not in use.

EXPOSURE LIMITS

INGREDIENTS	VALUE	UNIT	TYPE	AUTH	SKIN*
HEPTANE	400	ppm	TWA	ACGIH	
HEPTANE	1640	mg/m3	TWA	ACGIH	
HEPTANE	500	ppm	STEL	ACGIH	
HEPTANE	2050	mg/m3	STEL	ACGIH	
HEPTANE	400	ppm	TWA	OSHA	
HEPTANE	1600	mg/m3	TWA	OSHA	
HEPTANE	500	ppm	STEL	OSHA	
HEPTANE	2000	mg/m3	STEL	OSHA	
FLUOROCHEMICAL POLYMER +(5664P)	NONE	NONE	NONE	NONE	
ETHYL ACETATE	400	ppm	TWA	ACGIH	
ETHYL ACETATE	1440	mg/m3	TWA	ACGIH	
ETHYL ACETATE	400	ppm	TWA	OSHA	
ETHYL ACETATE	1400	mg/m3	TWA	OSHA	

*.**SKIN NOTATION:** Listed substances indicated with "Y" under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

03-84
4885

ATTN: MARGE BARNETT
RANDY STECK

MATERIAL SAFETY
DATA SHEET

3M

8. HEALTH HAZARD DATA

EYE CONTACT:
Heptane and/or ethyl acetate liquid and vapors may cause irritation of the eyes. FC-3537 was found to be a mild eye irritant in animal tests (estimated Draize score of 6/110).

SKIN CONTACT:
FC-3537 will produce skin irritation with prolonged or repeated skin contact. FC-3537 was found to be a moderate skin irritant in animal tests (4-hour contact with semi-occlusion).

INHALATION:
Heptane and/or ethyl acetate may cause irritation of the respiratory system and temporary nervous system impairment. Symptoms of overexposure to heptane and/or ethyl acetate may include irritation of the nose and throat, dizziness, giddiness, weakness, fatigue, nausea, headache, stupor, loss of coordination, coma and lung damage. The toxicity of the spray of 0.5% FC-3537 solids in heptane was found to be in practically non-toxic range; 4-hour LC50(albino rats) was about 60 milligrams per liter or 14,620 ppm.

IF SWALLOWED:
Practically non-toxic via acute ingestion. Acute oral LD50(rats) was >5g/kg. If heptane and/or ethyl acetate are swallowed and vomiting occurs aspiration into the lungs may follow resulting in chemical pneumonia which can be fatal.

SECTION CHANGE DATES

PRECAUT. INFO. SECTION CHANGED SINCE MARCH 11, 1992 ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable

MATERIAL SAFETY DATA SHEET

TECHNICAL PROPELLANTS, INC.
6233 N. Pulaski Road - Chicago, IL. 60646

PRODUCT NAME: A-110, PROPANE

Emergency Telephone#: 800/424-9300
Information Telephone#: 312/463-5555

Revision Date: 8/84
Product Number: 58503

WARNING STATEMENT

DANGER! Extremely flammable. Gas reduces oxygen available for breathing. Liquid causes eye and skin burns and frostbite. Keep away from heat, sparks, flame, pilot lights, stoves, heater, electric motors or other sources of ignition. Keep valves closed when not in use. Use with adequate ventilation. Do not enter areas unless adequately ventilated. Do not get liquid in eyes, on skin, on clothing.

I. IDENTIFICATION

CHEMICAL NAME: A-110, Propane
CHEMICAL FAMILY: Petroleum Hydrocarbon, Alkane
FORMULA: C3H8
MOLECULAR WEIGHT: 44.09
SYNONYMS: Liquified Petroleum Gas (LPG), Sweetened
DEPT. OF TRANSPORTATION/ HAZARD CLASSIFICATION: Flammable Gas, Non-corrosive
SHIPPING NAME: Liquified Petroleum Gas
CHEMICAL ABSTRACT REGISTRY NUMBER: 68476-86-8
IDENTIFICATION NUMBER: UN 1075

II. PHYSICAL DATA

FT 9 SKB 12:30-42

BOILING POINT: -43.7 F.
FREEZING POINT: -305.0 F.
SPECIFIC GRAVITY (H2O = 1): 0.5077
WEIGHT PER GALLON @ 60 F.: 4.22 lbs.
VAPOR PRESSURE @ 70 F.: 110 psig
VAPOR DENSITY (air = 1): 1.522
SOLUBILITY IN WATER, % by wt.: 0.0007 @ 70 F.
PERCENT VOLATILES BY VOLUME: 100
EVAPORATION RATE: N/A
APPEARANCE AND ODOR: Clear, colorless; essentially odorless.

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III. HAZARDOUS INGREDIENTS

MATERIAL	Approx. Volume %	TLV(Units)
Propane	100	1,000 ppm

IV. FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE LIMIT IN AIR % BY VOLUME: LOWER- 2.2 UPPER- 9.5
FLASH POINT: -156 F.
EXTINGUISHING MEDIA: Dry chemical or CO2 after flow has been stopped.
SPECIAL FIRE FIGHTING PROCEDURES: Cool containers exposed to heat and flame with water. Move containers away from fire area if you can do it without risk. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or discoloration of tank.

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UNUSUAL FIRE & EXPLOSION HAZARDS: Vapor is heavier than air and may [illegible] and flash back

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type): Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (NIOSH approved, if available) or supplied air equipment.

VENTILATION: General mechanical ventilation may be adequate for maintaining airborne concentrations below established exposure limits. If general ventilation is inadequate, supplemental local exhaust may be required. Other special precautions, such as respiratory protection, may be required if airborne concentrations cannot be reduced to below the TLV by ventilation.

PROTECTIVE GLOVES: Wear thermally insulated gloves when handling.

EYE PROTECTION: Use protective face shield and chemical goggles where contact with product is possible.

OTHER PROTECTIVE EQUIPMENT: Self-contained respirators should be available for non-routine and emergency situations.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in well ventilated areas, away from heat, direct sunlight, and sources of ignition. Post areas "NO SMOKING OR OPEN FLAME." Keep away from oxidizing agents.

OTHER PRECAUTIONS: Containers should not be dropped. Keep container valve closed when not in use. Install protective caps for shipment.

ATTN: ~~DECK~~ ~~DONNELY~~ (Wilsons 5oz. LEATHER PROTECTOR)
RANDY STEEN

MATERIAL SAFETY DATA SHEET

Vangard Chemical Corp
1110 Washington Ave.
St. Louis Mo, 63101

****
Section I
****

Product Name: Water Repellant
General Classification: Aerosol solution of polymers
Other: Hydrocarbon Gases as propellant

****
Section II Ingredients/ Identity Information
****

% w/w	Chemical	C.A.S. Regis #	ACGIH TLV-TWA
65%	2,2,4-Trimethylpentane	540-84-1	N E
25%	C7&C8 Related Isoparaffins	NONE	N E
18%	Mixed hydrocarbon propellent	NONE	NONE
1.2%	FC-3537(Proprietary solution of Fluoroalkyl polymer @ 3M)	NONE	NONE
1%	Branched Hydrocarbon polymers	NONE	NONE

NOTE: THIS PRODUCT IS NOT "HAZARDOUS" WITHIN THE MEANING OF THE OSHA HAZARD COMMUNICATION STANDARD.

****
Section III Physical/ Chemical Characteristics
****

Boiling Point: 94 C (202 F)
Vapor Pressure:113 mm Hg
Vapor Density:>1 (Air=1)
Solubility In H20: Negligible
pH: N.A.
Specific Gravity (H20=1): 0.7
% Volatile by vol : 99
Evaporation Rate:=<1(butyl ac=1)
Odor And Appearance:Clear colorless,liquid mild odor

****
Section IV Flammability and Reactivity
****

Flash Point: 13 F (TCC) LFL: N E UFL: N E
Extinguishing Media: CO2, Water, or Dry Chemical Special
Fire Fighting Procedures : Full protective clothing including positive pressure self-contained breathing apparatus.

Unusual Fire Hazard:

Stability: __X Stable ____Unstable

Condition to Avoid: Not Applicable

Hazardous Polymerization: ___ May Occur _X_ Does Not Occur

Materials to Avoid: Strong Oxidizing materials

Hazardous Decomposition: Thermal decomposition may produce toxic material including HF, CO ,

pg 1 of 3

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ATTN: ~~BECK~~ ~~DUNDELY~~
RANDY STEEN

Product: Water Repellant (Aerosol)

****
Section V Health and Safety Data
****

Routes of Entry: Oral, Eye Contact, Dermal Contact , Respiratory

Medical Conditions Aggravated By Exposure: None Known

Acute Toxicity

Inhalation: May Cause headache, dizziness, nausea, unconsciousness. Inhalation LC > 15,000 ppm (rats)

Skin: May be mildly irritating.

Eyes: May be mildly irritating.

Ingestion: May irritate stomach and intestines. May be aspirated into the lungs, if swallowed, resulting in pulmonary edema and chemical pneumonitis.

Chronic Toxicity

No known applicable information.

Other Health Effects

Isoparaffinic hydrocarbons have caused injury to male rats only. No comparable health hazard for kidney disease is known to occur in humans.

First Aid

Inhalation: Remove to fresh air. If breathing has stopped, administer artificial respiration. Call a physician.

Skin: Remove contaminated clothing and shoes. Wash exposed areas with soap and water. Wash contaminated clothing before reuse.

Eyes: Flush with water for 15 minutes. If irritation persists call a physician.

Ingestion: Do not induce vomiting. Contact Physician or emergency medical facility immediately.

NOTE TO PHYSICIANS: Gastric lavage using a cuffed endotracheal tube may be performed.

ATTN: ~~BECK~~ ~~DONNELY~~
RANDY STEEN

Product: Water Repellant (aerosol)

****
Section VI Precautions for Safe Handling and Use
****

Precautions to be Taken in Handling and Storing:
Avoid extreme temperatures. Use only as directed for intended purpose of product.

Step to be Taken in Case Material is Released or Spilled:
Evacuate the area, ventilate and avoid breathing vapors. Remove all sources of sparks or open flames. Dike area to contain spill. Clean up area (wear protective equipment) by mopping or with absorbent material and place in closed containers for disposal. Avoid contamination of ground and surface waters. Do not flush to sewer. If a large indoor spill occurs, turn off air conditioning and/or heating system to prevent vapors from contaminating entire building.

Waste Disposal Method: Disposal is to be performed in compliance with all regulations regarding hydrocarbon solvents. Recovered liquids may be sent to a licensed reclaimer or incineration facility.

****
Section VII Special Protection Information
****

Respiratory Protection: None required for normal use.
Ventilation: None special for normal intended use.
Eye Protection: None required for normal use
Other Protective Equipment: None required for normal use.

612- 736-0747
Paul Zimmerman

3M Protective Chemical Products Division
3M Center
St. Paul, MN 55144-1000
612/733 1110

Charlie
919-[illegible]

June 3, 1991

Vangard Chemical Corp.
1110 Washington
St. Louis, MO 63101

Dear Sir:

For the past year, 3M has been working diligently on your behalf to develop a product that DOES NOT contain CFC's (e.g., Freon) or chlorinated solvents (e.g., 1,1,1-trichloroethane). We identified two primary objectives for this effort:

- The performance of the new product must be the equivalent of the existing FC-905 product (FC-905 does not contain CFC's but does contain 1,1,1-trichloroethane).
- The selling price must be comparable to FC-905 on a percent-to-solids basis.

The newly-developed FC-3537 product meets both of these objectives. In addition, in response to customer requests for a more concentrated fluorochemical, FC-3537 contains 25% active solids compared to 10% for FC-905. On a cost-per-solids basis, FC-3537 is the same price as FC-905 at all quantity levels.

Enclosed is a Technical Data Sheet and Material Safety Data Sheet for FC-3537. This new 3M product is now commercially available. Current pricing and order information are contained on the attached price page.

Thank you for your continued support. Please do not hesitate to contact me or our New York sales office with any questions.

Sincerely,

Janice L. JuVette
Advanced Market Development Administrator
Protective Chemical Products Division/kc

Enclosures

Rec'd 11 5 x 6 12:30 -92

3M Protector

Product Bulletin

May 1991 (Supersedes January 1990)

FC-3537

Introduction

FC-3537 is a fluorochemical resin concentrate dissolved in an ethyl acetate/heptane mixture designed for spray application to suede and unfinished grain leather. This product is designed for use in non-chlorinated or non-polar solvents. FC-3537 is used as an active ingredient in spray formulations or applied out of pressurized (or non-pressurized) aerosol containers. Properly applied, FC-3537 imparts excellent oil, water, and stain resistance. Leather color and hand are generally unaffected.

Material Description	Typical Properties
Appearance	Clear, Light Yellow Liquid
Typical Analysis	25% Total Solids 18% Ethyl Acetate 57% n-Heptane
Density	0.8 kg/l (7.0 lbs/gal)
Flash Point	
Pensky-Martens Closed Cup	-18°C (0°F)
Abel CC	0 to -13°C (32–45°F)
Shipping & Storage	Red Label Flammable Material

FC-3537 should not be stored at temperatures higher than 50°C (122°F) and lower than 0°C (32°F).

FC-3537 is freeze/thaw stable. If exposed to freezing temperatures, return slowly to room temperature before using. *Avoid agitation during thawing process.*

Caution

Application equipment should be supplied with local exhaust ventilation to assure no material escapes into the work place. If local exhaust ventilation is inadequate, all exposed personnel should wear a respirator suitable for filtering organic vapors and particles. The 3M Series 5000 or 7000 Respirators are suitable choices (Available from 3M Occupational Health and Environmental Safety Products Division).

Avoid prolonged or repeated skin contact with FC-3537 or its solutions. Wash hands before smoking or eating. Do not smoke when spraying.

The vapor/spray of formulations may be harmful. The toxicological properties of the formulations should be determined and the containers properly labeled to alert the user of possible hazards. The label should be in compliance with national regulations.

(continues...)

3M Protective Chemical Products Division
Global Headquarters:
3M Center Bldg. 301-1E-03
St. Paul, MN 55144-1000

3M

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Typical Application Procedure

- Silicone containing products generally cannot be used in the treating bath, as such material can severely affect oil repellency. All mixing and processing equipment must be free of silicones to avoid contamination of the solution. Use of silicones in earlier production steps and on the leather can contaminate the solution.
- Some dyes may be sensitive to some solvents, and a slight to medium color change could result.
- The choice of the solvent, solvent grade or solvent blend influences the solubility and oil and water resistance of FC-3537.
- Any proposed formula should be checked for compatibility, solubility, and performance.
- FC-3537 diluted in a ratio of 1:25 to 1:13 (1–2%) solids) is soluble in the following:

methyl isobutyl ketone
n-heptane
petroleum benzine (100–140)
white mineral spirits
isooctane
diethylether
1,1,1-trichloroethane
mixtures of: n-heptane/butyl acetate 30/70
n-heptane/ethyl acetate 30/70
n-heptane/isopropanol 70/30

General Application Recommendations

1. Aerosol Container System:

   FC-3537 can be packaged in pressurized aerosol containers for consumer application to suede and unfinished grain leathers.

   Suggested formulas by weight:

   a) 2% FC-3537
   13% Petroleum Benzine (100–140)
   50% Ethyl Acetate
   35% Dimethyl Ether (propellant)
   100%

   b) 2% FC-3537
   13% Petroleum Benzine (100–140)
   55% Ethyl Acetate
   30% Propane/Butane mixture (propellant)
   100%

2. Industrial Spray Application For Leather

   For spray application, any equipment capable of delivering a ***wet spray*** to the leather surface is satisfactory. Spray equipment must be equipped with local exhaust ventilation.

(continues...)

OFFICE COPY

MANUFACTURERS DISTRIBUTOR

Vangard Chemical Corporation

• CHEMICAL SPECIALTIES •

1110 Washington Avenue • (314) 241-0560
Louis, Mo. 63101, U.S.A. • D-U-N-S- No. 04- 2375

INVOICE NO.
M- 26434

SOLD TO:
WILSONS SUEDE & LEATHER
P. O. BOX 1009
MINNEAPOLIS, MN 55428

SHIPPED TO:
WILSONS SUEDE & LEATHER
850 WEST ARTESIA BLVD.
COMPTON, CALIF 90220

DATE	NO. OF CARTONS	STORE NO.	DRAY TICKET NO.	TERMS	PURCHASE ORDER NO.
12/11/92	312		4068	NET 30 DAYS	096311

DOZEN	STOCK NUMBER / DESCRIPTION	PRICE PER GROSS	AMOUNT
11,232 CANS	WILSONS LEATHER PROTECTOR, NEW FORMULA AND CAN	.83 PER CAN	9,322.56
	312 CASES = 11,232 CANS		
	THIS ORDER IS NOW COMPLETE, THANK YOU		
	BACKORDER:		
	~~P. O. #096316 15,382 CANS WILSONS~~		
	LEATHER PROTECTOR		
		EY12	
		SHL 12-30	42
			176
		TOTAL	$ 9,322.56

VANGARD CHEMICAL CORPORATION

1110 WASHINGTON AVENUE
ST. LOUIS, MISSOURI 63101
PHONE (314) 241-0560 • FAX (314) 241-1233

DATE 1/3/93 TIME _____ ☐ A.M. ☐ P.M. NUMBER OF PAGES (Including Cover Letter): 2

NOTE: If you did not receive all of the pages or if you have a question, please call the verifying number (below).

TO: MS. SANDY GLASER **FROM:** BARRY FELDMAN

CO NAME: CONSUMER PRODUCTS SAFETY COMMISSION	NAME
ADDRESS	SUBJECT: FY 93 IPI SAE
ATTENTION	FAX NO.
FAX NO.: 539 7146	VERIFYING NO.

FAX Transmission

REMARKS:

ON THURSDAY I RECEIVED A CALL FROM MY WIFE'S DOCTOR AT MISSOURI BAPTIST CANCER CENTER THAT MY WIFE'S CANCER HAS RETURNED, AND THEY DO NOT KNOW HOW FAR IT HAS SPREAD. I WAS WITH HER ALL DAY SATURDAY THERE HAVING TESTS, AND WILL ALSO BE THERE ALL DAY MONDAY. TUESDAY SHE WILL HAVE SURGERY TO IMPLANT A PORT FOR HER TO RECEIVE CHEMICAL THEROPY, AND HOPEFULLY MONDAY THEY WILL ADVISE US HOW FAR IT HAS SPREAD AND WHAT TO DO. HER DOCTOR TOLD ME THAT SHOULD HIRE A LAWYER TO ANWSER QUESTIONS FROM THE PUBLIC AND HE WOULD PROVIDE THE LAWYER WITH A LETTER SAYING THAT IT WAS A MEDICAL NECESSIDY FOR ME TO BE WITH MY WIFE AT THIS DIFFICULT TIME. I HAVE CONTACTED MY LAWYER, BUT HE HAS TO CHECK ALL OF THIS FIRMS FILES TO MAKE SURE THAT THEY HAVE NOT REPRESENTED 3M, PHILLIPS, PETROLITE, OR WILSONS TO MAKE SURE THERE WILL NOT BE A CONFLICT OF INTEREST.

SOME THINGS I THOUGHT YOU MIGHT WANT TO BE AWARE OF: HYDROSOL, A AEROSOL FILLER IN CHICAGO CALLED WILSONS AND SAID THEY ARE USING ALMOST THE SAME EXACT FORMULA EXCEPT THEY USE HEPTANE INSTEAD OF THE ISOOCTANE, AND DO NOT USE THE VYBAR FROM PETROLITE. THEY DO USE THE 3M RESIN AND PROPANE. THEY FILL AND BLEND THE FOLLOWING PRODUCTS WHICH ARE ALMOST THE SAME AS OURS, PERHAPS YOU SHOULD CHECK THEM OUT: KIWI AEROSOL WATER REPELLENTS AND SUEDE CLEANERS, ESQUIRE AEROSOL WATER REPELLENTS AND SUEDE CLEANERS, TOTES COAT DISTRIBUTED BY ALLIED SHOE PRODUCTS IN CHICAGO-AEROSOL WATER REPELLENTS AND SUEDE CLEANERS, CADILLAC WATER REPELLENT AND SUEDE CLEANERS, TANA AEROSOL WATER REPELLENTS AND SUEDE CLEANER, MELTONIAN AEROSOL WATER REPELLENTS AND SUEDE CLEANERS. HYDROSOL TOLD WILSONS THAT THEY DID GET IN TROUBLE IN THE STATE OF CALIFORNIA FOR HAVING TOLUENE IN THEIR PRODUCTS AND ADDINT TOLUENE TO THEIR PRODUCTS WITHOUT A CANCER AND BIRTH DEFECT WARNING ON THEIR LABEL AS REQUIRED BY CALIFORNIA PROP 65. KIWI, TANA, MELTONIAN, ESQUIRE, AND GRIFFITH ARE ALL DIVISIONS OF THE SARA LEE CORP., UNDER THE KIWI POLISH DIVISION OF PENNSYLVANIA.

I HAVE NOT BEEN ABLE TO GET YOU THE LABEL AND CONTAINER SAMPLES YOU REQUESTED DUE TO MY WIFE'S HEALTH PROBLEMS, BUT WILL ADVISE YOU HOPEFULLY EARLY IN THE WEEK HOW SOON I WILL BE ABLE TO GET THEM OUT. WILSONS HAS TOLD ME THAT SO FAR EVERY SINGLE LAB HAS FOUND THE PRODUCT TO BE EXACTLY WHAT WE SAID THE FORMULA WAS AND WHAT WILSONS AGREED TO BUY. YOU MIGHT ALSO

TO:
SANDY GLASER
CONSUMER PRODUCTS SAFETY COMMISSION

JAN 3, 1993

FROM:
BARRY FELDMAN
VANGARD CHEMICAL

WANT TO CHECK OUT IF THE PROBLEM HAS BEEN THE REACTION OF THE 5 OZ WILSONS LEATHER PROTECTOR ON THE FINISHES ON WILSONS LEATHER GARMENTS. ALL OF THEIR GARMENTS ARE MADE IN THIRD WORLD COUNTRIES SUCH AS CHINA AND INDIA, COULD IT BE POSSIBLE THAT THE SAFE LEATHER PROTECTOR RELEASED UNKOWN CHEMICALS FROM THE FINISHES FROM WILSONS GARMENTS? PERHAPS YOU SHOULD REQUEST FROM WILSONS THE CHEMICALS USED IN THE FINISHIN OF ALL OF THEIR GARMENTS.

WHAT GOT US THINKING ABOUT THIS WAS A COUBLE OF HANG UP PHONE CALLS WE RECEIVED LAST WEEK FROM PEOPLE WHO SAID THEY HAD USED OUR PRODUCTS FOR YEARS WITH NO PROBLEM, BUT THAT OUR PRODUCTS WERE ALL MADE IN THE USA AND IN CHECKING THE JACKETS AND OTHER GARMENTS IN WILSONS STORES THEY WERE ALL FROM ASIA. WILSONS CLAIMS THE LABS ARE ALSO CHECKING ON THIS, SO IF EVEN WILSONS HAS THE LABS CHECKING ON THIS PERHAPS IT HAS SOME MERIT.

FIELD ACTIVITY COVERSHEET

1. REGION/STATE: FOCR/MSP

2. OPERATION (Check One): (X) Inspection ( ) Establishment Visit ( ) Telephone Contact ( ) Investigation ( ) Other

3. DATE: Dec. 29, 1992

4. NUMBER (For RO Use):

5. ESTABLISHMENT
Name: Wilson Suede and Leather
Address: 400 Highway 169 So.
City: Minneapolis State: MN Zip: 55426 Telephone No.: 612-541-3100

6. RELATED FIRM (X) Parent ( ) Headquarters ( ) Subsidiary ( ) Other
Name: Melville Corporation City: Rye State: New York

7. PRODUCTS COVERED: Aerosol Leather Protector

8. OTHER CONSUMER PRODUCTS: Leather goods and accessories

9. ESTABLISHMENT TYPE
( ) Manufacturer ( ) Importer
( ) Wholesaler (X) Own Label Distributor
(X) Retailer ( ) Repackager
( ) Other

10. ANNUAL PRODUCTION
Product Covered $ 9.5 million Units 1.9 million
Other Products $ 490 million Units

11. I.S. BUSINESS
% Received 99
% Shipped 90

12. SAMPLES COLLECTED: R-830-4105/6

13. MIS CODE: 33567

14. HOURS
Activity 18.0
Travel 2.0

15. REASON FOR ACTIVITY (Assignment Reference): FPC93-006 F/u to injury reports re leather protector

16. ANNOUNCED ( ) Rationale for Announced Inspection
UNANNOUNCED (X)

17. EMPLOYEE'S NAME: Dennis D. Donath TITLE: Investigator SIGNATURE: Dennis D. Donath

18. (X) ENDORSEMENT ( ) REMARKS ( ) SUMMARY ( ) OTHER

This inspection was conducted as a F/U to reports of consumers suffering severe respiratory distress after using the 5 oz. size of Wilsons Leather Protector spray. It was the initial inspection of the company.

The inspection revealed that Wilsons Suede & Leather Co. owns and operates over 550 retail leather goods stores nationwide. In addition to the leather goods the stores sell chemical products used to treat the leather goods. These chemical products are produced under the Wilsons name by outside contractors. Wilsons Leather Protector is one of these chemical products. They have carried it for 4½ years and it has been made for them by Vanguard Chemical Co., St. Louis, Mo.

The original formula for the Leather Protector was: 96% 1,1,1 trichloroethane, 1% Scotchgard, 1% carbon dioxide. In 1992 Wilsons and Vanguard decided to change the formula (cont'd)

19. REVIEWER'S NAME: John R. Vece TITLE: S.P.S.I. SIGNATURE:

20. REVIEW DATE: 1-27-93

21. DISTRIBUTION: O: FOCR; cc: CERM, C. Jacobson; cc: MSP-RP.

CPSC FORM NO. 167 (Revised 8/86)

EIR 12/29/92 DDD

Wilsons Suede & Leather Co.
Minneapolis, Mn. 55426

ENDORSEMENT CONTINUED

because EPA was scheduled to phase out the use of 1,1,1 trichloroethane. The new formula was devised by Vanguard discussing with 3M the appropriate solvents to use with their Scotchgard compound. The new formula was: 80% Isooctane, 1% Vybar, 1% Scotchgard, 18% Propane. The new formula was packaged in a 5 oz aerosol size. The old formula had been packaged in a 7 oz. aerosol size.

Wilsons ordered 625,000 cans of the new 5 oz. containers from Vanguard. They were received in late Nov. and early Dec. 1992. Complaints about the product were first received by Wilsons on 12/27/92. They involved the 5 oz. size. Wilsons states that prior to this they had never received any complaints of injury or illness involving their Leather Protector. As a result of the reported problems Wilsons stopped selling the Leather Protector and recalled it. The firm estimates that approximately 350,000 cans had been sold. The firm's recall has included a press release and in store signs.

Prior to this problem Wilsons had never done anything but efficacy testing on the Leather Protector. They have since sent samples to several labs for chemical and biological testing.

A review of the product's labeling revealed that it is probably in violation of the FHSA in that it lacks appropriate flammability warnings.

F/U: Refer to Compliance.

EIR 12/29/92 DDD

Wilson Suede & Leather
400 Hwy 169 South
Minneapolis, MN 55426

SUMMARY OF FINDINGS:

This was the initial inspection of an own label distributor of an aerosol leather protector. The purpose of the inspection was to collect samples of the product and determine the reasons for medical problems reported by numerous consumers who had used the leather protector. The problems were first reported to the firm on December 27, 1992, by the Oregon Poison Control Center.

The product which prompted the consumer calls had been reformulated and placed on sale in Wilson Stores nationwide in late November and early December, 1992. The exact number of the 5 ounce containers which were sold to consumers is not known, however it was less than 350,000.

Shortly after the product was placed in use, some consumers experienced respiratory problems consistent with Petroleum Distillate Inhalation. The firm withdrew the product from sale and announced a recall on December 28, 1992. Consumers were encouraged to call the firm if they had questions. Between December 28, 1992 and January 8, 1993, the firm received approximately 9,000 telephone calls from consumers. Those who had medical questions or who reported having symptoms, were called back. Of that number (1,310), about 1% actually claim to have become ill.

Management was unable to provide an explanation for the sudden rash of incidents. They have sent samples to a number of private laboratories for chemical and biological testing and are awaiting results. They have also consulted with the contract packager of the product and manufacturers of the components of the product.

Samples of the 5 ounce containers and 7 ounce (original formula) containers were collected as R-830-4105/6.

Review of the label indicates the 5 ounce containers are misbranded under the Federal Hazardous Substances Act. The product is extremely flammable and should bare the signal word, "DANGER" on

the front panel instead of "CAUTION". The statement of principle hazards on the front panel fail to include any reference to extreme flammability. Although the front panel includes the statement, "VAPOR MAY BE HARMFUL", there is nothing else on the label instructing the consumer to follow any special precautions to avoid inhalation of the vapor.

Management was provided with copies of the FHSA and CPSA regulations.

BUSINESS STRUCTURE:

Wilson Suede & Leather is a subsidiary of Melville Corporation, Rye, New York. The firm owns and operates over 550 retail stores nationally under several different names: Wilson's The Leather Experts, Wilson's Suede and Leather (Together about 475 Stores), Tannery West (40 Stores), Berman's (20 Stores), Snyder's Leather Outlet (20 Stores), Berman's Leather Outlet (5 Stores), and Pellcuir (5 Stores). These stores sell leather goods and accessories. Among the accessories are chemical substances used to treat or protect the leather goods. The firm does not manufacture any of these products but has them produced by private contractors under the Wilson or Tannery West labels.

The officers of Wilson Suede and Leather are as follows:

Mr. David Rogers, President
Mr. Richard Donnelly, Vice President
Mr. Paul Tomlinson, Vice President - Marketing

All of the above maintain there offices at the firm's facility in Minneapolis, Minnesota.

PERSON INTERVIEWED AND INDIVIDUAL RESPONSIBILITY:

My credentials were shown and a Notice of Inspection was issued to Mr. Paul Tomlinson, Vice President - Marketing. I also met with Mr. Randy Steen, Divisional Merchandise Manager and Ms. Camille Pearson, Associate Buyer.

All of the information in this report was provided by these 3 individuals. Mr. Steen said that he was responsible for product development and labeling and that he reported to Mr. Tomlinson.

I advised Mr. Tomlinson that the purpose of my visit was to follow up on the firm's press release issued on the previous day and reports that had been coming in from Poison Control Centers regarding the firm's 5 ounce aerosol leather protector.

LEATHER PROTECTOR - HISTORY AND MARKETING:

Approximately 4 1/2 years ago Wilson Suede and Leather began marketing a leather protector in a 7 ounce aerosol container. The product was manufactured and packaged for Wilson by Vanguard Chemical Company, St. Louis, Missouri. The formula for this product was as follows:

> 1, 1, 1 - Trichloroethane 96%, Scotchgard (3M FC-905) 1%, Carbon/dixoide gas 3%.

In 1992, Wilson and Vanguard decided to reformulate this product because 1,1,1-Trichloroethane was scheduled to be phased out of consumer products by the Environmental Protection Agency. The steps taken by Vanguard to develop a new formula are discussed in a memo the company sent to Wilson's on 12/27/92. The memo is attached to this report as exhibit no. 11. Basically, Vanguard consulted with the 3M company to come up with components and a propellent which would be compatible with one of there Scotchgard compounds. They also wanted a formula which would not require the Strident warnings required by the state of California. The formula finally decided upon contained 80% Isooctane, 1% Vybar, 1% Scotchgard, and 18% Propane. The labeling including warnings were developed jointly by Wilson and Vanguard. The product was packaged in a 5 ounce aerosol container and Vanguard began making shipments to Wilson's distribution center in Minneapolis in November 1992. The product first began appearing in the firm's stores in late November and early December of 1992.

Mr. Tomlinson said that the initial order to Vanguard was for 625,000/5 ounce containers. He said that to the best of his knowledge their were able to freeze 275,000 containers in the distribution pipeline and that approximately 350,000 containers had actually been sold to consumers.

Mr. Tomlinson said an exact number was difficult to obtain because the new 5 ounce containers had the same SKU number as the older 7 ounce cans and that both sizes were being sold in stores until the 7 ounce containers were used up. He said the exact number of 5 ounce containers sold to consumers was probably less than 350,000.

QUALITY CONTROL AND TESTING:

Mr. Tomlinson said that Wilson had not conducted any biological or chemical testing of the new formulation. Vanguard and Wilson both conducted some tests to see how the new formulation preformed on leather products.

Subsequent, to the inspection, the firm sent samples of the 5 ounce containers to several laboratories for chemical and biological testing. Included among the laboratory are U.S. Testing Company in New Jersey,, Twin Cities Testing Co. in Minneapolis and Phoenix Laboratories in Chicago. At the time this report was being prepared, the firm had not received any result from these laboratory tests.

COMPLAINTS AND INJURIES:

Prior to December 29, 1992, the Consumer Product Safety Commission had not received any complaints about this firm's products nor had the firm ever been inspected by CPSC.

According to Mr. Tomlinson, the firm received a telephone call from the Oregon Poison Center on December 27, 1992. He said the Poison Control Center reported receiving a number of calls from Consumers who reported respiratory distress after using the Leather Protector in the 5 ounce container. Mr. Tomlinson said this was the first indication that their might be a problem with the product in the 5 ounce containers. He said the firm does not maintain a complaint file and that they had never received any injury reports or complaints on the product in the 7 ounce container. He said the firm does not have a formal complaint handling procedure and in fact many of the complaints are taken care of the store level without ever being reported to the headquarters office in Minneapolis. He was quite certain there had never been any injury claims or liability suits involving the formulation in the 7 ounce container.

Due to the number of calls received by the Oregon Poison Center and the serious nature of the symptoms being reported by consumers, Mr. Tomlinson said the firm decided to withdraw the product from sale on December 28, 1992. At the same time they issued a press release announcing a recall of the 5 ounce containers. The press release encouraged consumers who had questions or problems with the product to call the company at their Minneapolis Office. On January 11, 1993, the firm provided the Twin Cities Resident Post with a summary of the telephone calls they have received from consumers. The total number of calls received from December 28, 1992 and January 8, 1993 was approximately 9,000. Of that number, 1,318 calls were from consumers who either had concerns about the long term affect of using the product or who were reporting symptoms after having just used it. Mr. Tomlinson said the actual number of consumers who reported having symptoms like those described by the Poison Control Center was about 1% of the total number of calls. The firm's recommendation to those callers was to seek medical attention and to submit claims for reimbursement to the company. A copy of the telephone call summary sheet is attached as exhibit no. 13.

LABEL REVIEW:

The label review was limited to the firm's Leather Protector product in the 5 ounce container. The product appear to be misbranded under the Federal Hazardous Substance Act Regulations. The product is extremely flammable and should bear the signal word "DANGER" on the front panel instead of "CAUTION". The statement of principal hazards on the front panel fails to include any reference to extreme flammability. Although the front panel includes the statement, "VAPOR MAY BE HARMFUL" there is nothing else on the label instructing the user to follow any special precautions to avoid inhalation of the vapor.

SAMPLES COLLECTED:

During the inspection, samples of the old and new formula product were collected and forwarded to HSHL as R-830-4105/6.

PRODUCT CODES:

The manufacturer of the 5 ounce leather protector uses a simple date code which is stamped on the bottom of each can. The only two codes that were used on this product were "C1192" and "C1292".

DISCUSSIONS WITH MANAGEMENT:

At the time of the inspection on December 29, 1992, the firm had no information or theories as to the reason for the symptoms being reported by users of the 5 ounce leather protector. Mr. Tomlinson said that the firm had never had experience with a recall in the past and that he welcomed any suggestions or recommendations. Two specific recommendations were made. First of all, I recommended that the firm prepare in-store posters to alert people who may not have heard the publicity on television or read it in newspapers. Subsequent to the inspection I provided Mr. Tomlinson with examples of posters prepared by other firms when they recalled products. A copy of the Wilson posters which went into their stores on January 6, 1993, are attached as Exhibit #12. Mr. Tomlinson said the firm was not certain as to what to tell consumers who were calling with medical complaints. He said that he intended to get some advice from the University of Minnesota Medical School. Subsequent to the inspection, I contacted Mr. Tomlinson and put him in touch with Dr. Rick Kingston, Director of the Minnesota Poison Center. Mr. Tomlinson and Dr. Kingston subsequently met and devised a strategy for dealing with the consumer calls.

I provided Mr. Tomlinson with copies of the FHSA and CPSA regulations. I explained the Federal Hazardous Substance Act requirements as they pertained to aerosol products such as the leather protector. I also briefly explained to him the reporting obligations the firm had under Section 15 of the Consumer Product Safety Act.

EXHIBITS:

1. Wilson Suede and Leather press release.
2. Leather Protector, 5 ounce-MSDS.
3. Isooctane-MSDS.
4. Vybar 825-MSDS.
5. 3M-FC 3567-MSDS.
6. Toxic summary sheet-FC3567.
7. 3M Recommendation for application-FC3567.
8. Leather Protector 5 ounce label.
9. 3M FC905-MSDS.
10. Leather Protector, 7 ounce label.
11. Vanguard Chemical Company memo 12/27/92.
12. Copies of in-store posters.
13. Telephone call summary sheet.
14. Sample collection report copies.
15. Dealer affidavit.

Dennis D. Donath
Product Safety Investigator
Twin Cities Resident Post

U.S. CONSUMER PRODUCT SAFETY COMMISSION

NOTICE OF INSPECTION

1. DATE: Dec. 29, 1982

2. TIME: 8:55 A.M. _____ P.M.

3. FROM (Area Office and Address)

4. TO

A. NAME AND TITLE OF INDIVIDUAL: Paul D. Tomlinson, V.P. of Marketing

B. FIRM NAME: Wilson Suede & Leather

C. NUMBER AND STREET ADDRESS: 400 HHY 169 South

D. CITY, STATE AND ZIP CODE: Minneapolis, Mn. 55426

Notice of Inspection is hereby given pursuant to:

- Flammable Fabrics Act (15 U.S.C. 1191 *et seq.*);
- Federal Trade Commission Act (15 U.S.C. 41 *et seq.*);
- Sections 16, 19 and 27 of the Consumer Product Safety Act (15 U.S.C. 2065, 2068 and 2076)
- Section 704(a) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 374(a)) [Authority for inspections in connection with the Poison Prevention Packaging Act of 1970 (15 U.S.C. 1471 *et seq.*)] and/or
- ✓ Section 11(b) of the Federal Hazardous Substances Act as Amended (15 U.S.C. 1270(b)).

Refer to the back of this form for a discussion of inspectional authority and for pertinent statutory language.

5. PURPOSES OF INSPECTION AND NATURE OF INFORMATION TO BE OBTAINED AND/OR COPIED.

The purpose of this inspection is to obtain information; to review and obtain copies of items including but not limited to records, reports, books, documents; and labeling; and to obtain samples, in order to enforce or determine compliance with the Acts administered by the Consumer Product Safety Commission.

8. FREEDOM OF INFORMATION REQUIREMENTS

Those from whom information is requested should state whether any of the information submitted is believed to contain or relate to a trade secret or other matter which should be considered by the Commission to be confidential and whether any of the information is believed to be entitled to exemption from disclosure by the Commission under the provisions of the Freedom of Information Act (15 U.S.C. 552). Any statement asserting this claim of confidentiality must be in writing, and any request for exemption of the information from disclosure must be made in accordance with the Commission's Freedom of Information Act regulations. 16 CFR Part 1015.

7. SIGNATURE (Authorized CPSC Official)

Dennis D Donath

CPSC Form 296 (9/79)

* U.S. GOVERNMENT PRINTING OFFICE: 1981-341-102

#1
Wilson Suede & Leather
EJ 12/29/92
DDD

Mona Meyer McGrath & Gavin

FOR IMMEDIATE RELEASE

CONTACT: Paul Tomlinson
Wilsons Leather
(612) 541-3422

WILSONS LEATHER RECALLS LEATHER PROTECTOR PRODUCT

MINNEAPOLIS, December 28, 1992 -- Wilsons Suede & Leather company today announced that it is recalling its Wilsons Leather Protector spray product from some 600 stores nationally after a report Sunday from Oregon of customers who reported shortness of breath and coughing after using the product.

The 5-ounce can is a new product manufactured with a petroleum distillate used as a substitute propellant to replace chlorofluorocarbons, according to Wilsons Vice President Paul Tomlinson.

"We have pulled both the 5-ounce cans and the old formulation 7-ounce can until we've had a chance to analyze the situation," Tomlinson said. "Only the 5-ounce size is being recalled, but we are removing both sizes from shelves until we have more information."

The company heard Sunday from the Oregon Health Sciences Poison Center in Portland of complaints from customers who said they had suffered shortness of breath or coughing after using the product.

-more-

8400
NORMANDALE LAKE
BOULEVARD
SUITE 500
MINNEAPOLIS
MINNESOTA
55437-1080

612-832-5000
FAX 612-831-8241

JD

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"We've been working with the Portland officials while we investigate the matter," Tomlinson said. "Until we've completed that investigation we are voluntarily pulling the product from all Wilsons, Bermans, Pelle Cuir, Snyders Leather Outlet, Bermans Leather Outlet and Tannery West stores."

Tomlinson said the directive to remove the product from shelves went out immediately after hearing from Portland officials.

"We will continue to work with officials in Oregon to learn more about the incidents there," Tomlinson said.

Customers should return the product for a full refund, Tomlinson said. In addition, customers with questions may call the company collect at (612) 541-3561.

The Leather Protector product is sprayed on coats boots and other items to improve the look and performance of the products.

-30-

ATTN: DICK DONNELY (Wilsons See. LEATHER PROTECTOR)

R-830-4105
12/28/92
DDD

MATERIAL SAFETY DATA SHEET

#2
Wilson Suede & Leather
EI 12/29/92
DDD

Vangard Chemical Corp
1110 Washington Ave.
St. Louis Mo, 63101

****
Section I
****

Product Name: Water Repellant
General Classification: Aerosol solution of polymers
Other: Hydrocarbon Gases as propellant

****
Section II Ingredients/ Identity Information
****

% w/w	Chemical	C.A.S. Regis #	ACGIH TLV-TWA
65%	2,2,4-Trimethylpentane	540-84-1	N E
25%	C7&C8 Related Isoparaffins	NONE	N E
18%	Mixed hydrocarbon propellent	NONE	NONE
1.2%	FC-3537(Proprietary solution of Fluoroalkyl polymer @ 3M)	NONE	NONE
1%	Branched Hydrocarbon polymers	NONE	NONE

NOTE: THIS PRODUCT IS NOT "HAZARDOUS" WITHIN THE MEANING OF THE OSHA HAZARD COMMUNICATION STANDARD.

****
Section III Physical/ Chemical Characteristics
****

Boiling Point: 94 C (202 F)
Vapor Pressure:113 mm Hg
Vapor Density:>1 (Air=1)
Solubility In H20:
Negligible
pH: N.A.
Specific Gravity (H20=1): 0.7
% Volatile by vol : 99
Evaporation Rate:=<1(butyl ac=1)
Odor And Appearance:Clear colorless,liquid mild odor

****
Section IV Flammability and Reactivity
****

Flash Point: 13 F (TCC) LFL: N E UFL: N E
Extinguishing Media: CO2, Water, or Dry Chemical Special
Fire Fighting Procedures : Full protective clothing including positive pressure self-contained breathing apparatus.

Unusual Fire Hazard:

Stability: _X Stable ____Unstable

Condition to Avoid: Not Applicable

Hazardous Polymerization: ___ May Occur _X_ Does Not Occur

Materials to Avoid: Strong Oxidizing materials

Hazardous Decomposition: Thermal decomposition may produce toxic material including HF, CO ,

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ATTN: Dick Dewey

Product: Water Repellant (Aerosol)

****
Section V Health and Safety Data
****

Routes of Entry: Oral, Eye Contact, Dermal Contact , Respiratory

Medical Conditions Aggravated By Exposure: None Known

Acute Toxicity

Inhalation: May Cause headache, dizziness, nausea, unconsciousness. Inhalation LC > 15,000 ppm (rats)

Skin: May be mildly irritating.

Eyes: May be mildly irritating.

Ingestion: May irritate stomach and intestines. May be aspirated into the lungs, if swallowed, resulting in pulmonary edema and chemical pneumonitis.

Chronic Toxicity

No known applicable information.

Other Health Effects

Isoparaffinic hydrocarbons have caused injury to male rats only. No comparable health hazard for kidney disease is known to occur in humans.

First Aid

Inhalation: Remove to fresh air. If breathing has stopped, administer artificial respiration. Call a physician.

Skin: Remove contaminated clothing and shoes. Wash exposed areas with soap and water. Wash contaminated clothing before reuse.

Eyes: Flush with water for 15 minutes. If irritation persists call a physician.

Ingestion: Do not induce vomiting. Contact Physician or emergency medical facility immediately.

NOTE TO PHYSICIANS: Gastric lavage using a cuffed endotracheal tube may be performed.

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...for intended

ATTN: RANDY STEEN

THIS IS ISOCTANE THE MAIN INGREDIENT

August 16, 1991

PHILLIPS 66

DBA and WORLDWIDE

Material Safety Data Sheet

#3 Wilson Suede & Leather EI 12/29/92 DDD

SOLTROL® 10

PHILLIPS 66 COMPANY
A Division of Phillips Petroleum Company
Bartlesville, Oklahoma 74004

PHONE NUMBERS
Emergency:
Business Hours (918) 661-3865
After Hours (918) 661-8718
General MSDS Information: (918) 661-8527
For Additional MSDSs: (918) 661-6952

A. Product Identification

Synonyms: Mixture
Chemical Name: Mixture
Chemical Family: Isoparaffins
Chemical Formula: Mixture
CAS Reg. No.: Mixture
Product No.: APU100

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it is subject to all applicable provisions and restrictions of 40 CFR, section 721 and 723.250.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
2,2,4-Trimethylpentane	540-84-1	70	NE	NE
Related C7 and C8 Isoparaffins	NA	30	NE	NE

ATTN' DICK DONNELY

Product: Water Repellant (aerosol)

****
Section VI Precautions for Safe Handling and Use
****

Precautions to be Taken in Handling and Storing:
Avoid extreme temperatures. Use only as directed for intended purpose of product.

Step to be Taken in Case Material is Released or Spilled:
Evacuate the area, ventilate and avoid breathing vapors. Remove all sources of sparks or open flames. Dike area to contain spill. Clean up area (wear protective equipment) by mopping or with absorbent material and place in closed containers for disposal. Avoid contamination of ground and surface waters. Do not flush to sewer. If a large indoor spill occurs, turn off air conditioning and/or heating system to prevent vapors from contaminating entire building.

Waste Disposal Methods: Disposal is to be performed in compliance with all regulations regarding hydrocarbon solvents. Recovered liquids may be sent to a licensed reclaimer or incineration facility.

****
Section VII Special Protection Information
****

Respiratory Protection: None required for normal use.
Ventilation: None special for normal intended use.
Eye Protection: None required for normal use
Other Protective Equipment: None required for normal use.

ATTN: RANDY STEEN

C. Personal Protection Information

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required unless needed to prevent respiratory irritation.

Eye Protection: Use safety glasses with side shields or face shield if splashes could occur.

Skin Protection: Use rubber, neoprene or vinyl alcohol gloves.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Avoid breathing vapors or mists. Avoid contact with eyes, skin or clothing. Use with adequate ventilation. Wash thoroughly after handling. Launder contaminated clothing before reuse. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

Store and use in a well-ventilated area. Store in a tightly closed container. Provide means for controlling leaks and spills. Keep away from heat, sparks, and flame. Bond and ground during liquid transfer.

E. Reactivity Data

Stability: Stable
Conditions to Avoid: Not Applicable
Incompatibility (Materials to Avoid): Oxygen or strong oxidizing materials.

Hazardous Polymerization: Will Not Occur
Conditions to Avoid: Not Applicable
Hazardous Decomposition Products: Carbon oxides may form when burned.

F. Health Hazard Data

Recommended Exposure Limits:

The Company recommended exposure limit is 400 ppm.

Vapor Density (Air = 1):	>1
Solubility in Water:	Negligible
Specific Gravity (H2O = 1):	0.7 @ 60/60F (15/15C)
Percent Volatile by Volume:	100
Evaporation Rate (Butyl Acetate = 1):	<1
Viscosity:	Not Established

H. Fire and Explosion Data

Flash Point (Method Used):	13F (-11C) (TCC, ASTM D56)
Flammable Limits (% by Volume in Air):	LEL - Not Established UEL - Not Established
Fire Extinguishing Media:	Dry chemical, foam, carbon dioxide (CO2).
Special Fire Fighting Procedures:	Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if exposure conditions warrant. Water fog or spray may be used to cool exposed equipment and containers. Do not spray water directly on fire - product will float and could be reignited on surface of water.
Fire and Explosion Hazards:	Carbon oxides and various hydrocarbons formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along the ground away from the handling site. Flash back along the vapor trail is possible.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Keep out of water sources and sewers. Protect from sources of ignition. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal containers using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or place in RCRA permitted waste management facility.

ATTN: RANDY STEER

J. DOT Transportation

Shipping Name: Naphtha
Hazard Class: 3 (Flammable liquid)
ID Number: UN 1255
Packing Group: II
Marking: Naphtha, UN 1255
Label: Flammable liquid
Placard: Flammable/1255
Hazardous Substance/RQ: Not applicable
Shipping Description: Naphtha, 3 (Flammable liquid), UN 1255, PG II
Packaging References: 49 CFR 173.150, 173.202, 173.242

K. RCRA Classification - Unadulterated Product as a Waste

Ignitable (D001)

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

X This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

___ Combustible Liquid	___ Flammable Aerosol	___ Oxidizer
___ Compressed Gas	___ Explosive	___ Pyrophoric
___ Flammable Gas	X Health Hazard (Section F)	___ Unstable
X Flammable Liquid	___ Organic Peroxide	___ Water Reactive
___ Flammable Solid		

___ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

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ATTN! RANDY STEEN

N. Additional Comments

SARA 313

As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#4 Suede & Leather Cylcon 12/28/92 DDD

MATERIAL SAFETY DATA SHEET

IN 502 Formula

PETROLITE CORPORATION
369 MARSHALL AVE.
ST.LOUIS MO 63119 U.S.A

REVISION DATE: 04/10/90
EMERGENCY PHONE: 1-314-961-3500
CHEMTREC EMER NO: 1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION

PRODUCT: VYBAR 829 POLYMER [redacted] MSDS#: SP000246 LABEL: N/A

SHIPPING NAME: NOT HAZARDOUS PER D.O.T. CFR TITLE 49

CHEMICAL DESCRIPTION
POLYMERIZED C>10 ALPHA ALKENES [68527-08-2]

SECTION 2 HAZARDOUS INGREDIENTS

None as defined under the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Hazardous Products Act (S.C. 1987, c. 30(Part I)).

SECTION 3 PHYSICAL DATA

SPECIFIC GRAVITY: @60 F ~0.84 VOLATILITY: NIL
VAPOR PRESSURE: Not Determined SOL. IN WATER: Insoluble

APPEARANCE AND ODOR: Amber liquid. Little or no odor.

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >350 F FLAMMABLE LIMITS: Not Established

FLASH METHOD:
COC ASTM D-92

EXTINGUISHING MEDIA:
Use water spray or fog, alcohol-type foam, dry chemical or CO2.

FIRE FIGHTING PROCEDURES:
Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Non-flammable. Keep fire-exposed containers cool using water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None known.

CONTINUED ON PAGE: 2

ATTN RANDY TEEN

20

CONTINUATION OF SP000246

****

SECTION 5 HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

INHALATION:
Not expected to be a problem under normal conditions of use.

SKIN AND EYE CONTACT:
Not expected to be a problem under normal conditions of use. May produce mild irritation on prolonged contact with skin or eyes. Not expected to be absorbed through the skin in significant quantities.

INGESTION:
May be harmful if swallowed. May cause gastrointestinal disturbances.

EMERGENCY AND FIRST AID PROCEDURES:
Wash skin thoroughly with soap and water. Launder clothing before reuse. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician. If inhaled, remove to fresh air and administer oxygen if necessary. If ingested, consult a physician.

****

SECTION 6 REACTIVITY DATA

STABILITY:
Stable under normal conditions of storage and use.

INCOMPATIBILITY:
Keep away from strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
None known.

HAZARDOUS POLYMERIZATION:
Will not occur.

****

SECTION 7 SPILL AND LEAK PROCEDURES

IF MATERIAL IS SPILLED OR RELEASED:
Small spill - Dilute with water and absorb on paper, cloth or other material.
Large spill - Dike to prevent entering any sewer or water-way. Transfer liquid to a holding container. Flush residues to sewer. Use personal protective equipment as necessary.

CONTINUED ON PAGE: 3

ATTN: RHODY TEN

20

MATERIAL SAFETY DATA SHEET

CONTINUATION OF SP000246

DISPOSAL METHOD:

Secure container and take to an approved waste disposal site. Dispose of residues in accordance with applicable waste management regulations.

DECONTAMINATION PROCEDURES:

Not appropriate.

****

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Respirator use is not expected to be necessary under normal conditions of handling. In emergency situations, use of a NIOSH-approved respirator may be required.

VENTILATION:

General ventilation should be provided to maintain ambient concentrations below nuisance levels.

PROTECTIVE CLOTHING:

Chemical-resistant gloves and chemical goggles should be used to prevent skin and eye contact.

****

SECTION 9 SPECIAL PRECAUTIONS

Avoid breathing of vapors and contact with eyes, skin or clothing. Hazardous product residue may remain in emptied container. Do not reuse container without commercial cleaning or reconditioning.

****

Although the information and recommendations set forth herein are believed to be correct as of the date hereof, Petrolite makes no representations to the accuracy of such information and recommendations. It is the user's responsibility to determine the suitability and completeness of such information and recommendation for its own particular use. Petrolite shall not be responsible for any direct, indirect, incidental or consequential damages of whatsoever nature resulting from the publication, use of or reliance upon such information and recommendations.

PETROLITE EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF EVERY KIND AND NATURE INCLUDING THOSE OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT, THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN, OR ANY USE OR RELIANCE THEREON.

ATTN RANDY STEEN

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3862

03-04
4882

ATTN
DAVE BARNETT
RANDY STEEN

MATERIAL SAFETY
DATA SHEET

3M

#5
Wilson Suede & Leather
EI 12/21/92
DDD

DIVISION: PROTECTIVE CHEMICAL PRODUCTS DIVISION
TRADE NAME:
[redacted] 3M Brand Protector

3M I.D. NUMBER: 98-0211-6411-8 98-0211-6412-6 98-0211-6413-4

ISSUED: APRIL 15, 1992
SUPERSEDES: MARCH 11, 1992
DOCUMENT: 10-4368-3

I. INGREDIENT

	C.A.S. NO.	PERCENT
HEPTANE	142-82-5	57.8
FLUOROCHEMICAL POLYMER +(5664P)	TradeSecret	25.8
ETHYL ACETATE	141-78-6	16.8

II. PHYSICAL DATA

BOILING POINT:	ca. 93.88 C
VAPOR PRESSURE:	48.1888 mmHg Calc. @ R.T.
VAPOR DENSITY:	ca. 3.28 Air = 1 Calc. @ R.T.
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	slight
SP. GRAVITY:	ca. 0.888 Water = 1
PERCENT VOLATILE:	75.88 %
VOLATILE ORGANICS:	N/D
VOC LESS H2O & EXEMPT SOLVENT	N/D
pH:	N/A
VISCOSITY:	N/D
MELTING POINT	N/D

APPEARANCE AND ODOR: Clear, light yellow liquid.

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: -13.88 C
ABEL
FLAMMABLE LIMITS - LEL: N/D
FLAMMABLE LIMITS - UEL: N/D
AUTOIGNITION TEMPERATURE: N/D
EXTINGUISHING MEDIA:
Water Fog, CO2, Dry Chemical, Alcohol Foam
SPECIAL FIRE FIGHTING PROCEDURES:
Full protective clothing including self-contained breathing apparatus, coat, pants, sleeves, boots, and bands around legs, arms and waist should be provided. No skin surface should be exposed.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Toxic by-products, including HF, may be formed.
NFPA-HAZARD-CODES: HEALTH 2 FIRE 4 REACTIVITY 0
UNUSUAL REACTION HAZARD: none

V. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY - MATERIALS TO AVOID:
Not Applicable

Abbreviations: N/D - Not Determined N/A - Not Applicable

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

83-84
4883

ATTN
Randy Stein

MATERIAL SAFETY
DATA SHEET

3M

5. REACTIVITY DATA (continued)

HAZARDOUS POLYMERIZATION: Will Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition may produce toxic materials including HF.

7. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
Observe precautions from other sections. Extinguish all ignition sources. Ventilate. Contain spill. Cover with absorbent material. Collect spilled material. Place in an approved metal container, and seal.

RECOMMENDED DISPOSAL:
Mix with flammable material and incinerate in a permitted hazardous waste incinerator. Combustion products will include HF. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste No.: D001 (Ignitable)

ENVIRONMENTAL DATA:
Chemical oxygen demand(COD): 0.6g/g; Biochemical oxygen demand(BOD): 20-day :0.22g/g; 96hr LC50 Fathead minnow: 750(560-1000)mg/L; 48hr EC50 Waterflea: 910 mg/L.; Activated sludge respiration inhibition (OECD METHOD 209) >1000 mg/l following 30 min.and 3 hr exposure. No observable effect level(NOEL): Fish 180mg/L.; Water flea 56 mg/L.

SARA HAZARD CLASS:
FIRE HAZARD: Yes PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

8. RECOMMENDED FIRST AID

EYE CONTACT:
Immediately flush with plenty of water. Call a physician.

SKIN CONTACT:
Wash affected area with soap and water.

INHALATION:
If symptoms occur, remove person to fresh air. If symptoms continue, call a physician.

IF SWALLOWED:
DO NOT INDUCE VOMITING. Give copious amounts of water. IMMEDIATELY call a physician or Poison Control Center.

9. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Safety Goggles

SKIN PROTECTION:
Rubber Gloves

Abbreviations: N/D = Not Determined N/A = Not Applicable

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Extended Page

3M Brand Protector
APRIL 15, 1992

V. PRECAUTIONARY INFORMATION (Continued)

VENTILATION PROTECTION:
Local exhaust ventilation is recommended where the material becomes airborne.

RESPIRATORY PROTECTION:
NIOSH approved respirator with organic vapor cartridge and particulate filter.

PREVENTION OF ACCIDENTAL INGESTION:
Not determined.

RECOMMENDED STORAGE:
Not determined.

FIRE AND EXPLOSION AVOIDANCE:
Not determined.

OTHER PRECAUTIONARY INFORMATION:
Keep away for heat, sparks and open flames. Use only in well ventilated areas with sufficient air movement to maintain airborne levels at recognized health and safety levels. Avoid breathing vapors, spray or mist. Avoid eye and skin contact. Wear eye protection and protective gloves where contact may occur. Keep container closed when not in use.

EXPOSURE LIMITS

INGREDIENTS	VALUE	UNIT	TYPE	AUTH	SKIN*
HEPTANE	400	ppm	TWA	ACGIH	
HEPTANE	1640	mg/m3	TWA	ACGIH	
HEPTANE	500	ppm	STEL	ACGIH	
HEPTANE	2050	mg/m3	STEL	ACGIH	
HEPTANE	400	ppm	TWA	OSHA	
HEPTANE	1600	mg/m3	TWA	OSHA	
HEPTANE	500	ppm	STEL	OSHA	
FLUOROCHEMICAL POLYMER 4(3664P)	2000	mg/m3	STEL	OSHA	
ETHYL ACETATE	NONE	NONE	NONE	NONE	
ETHYL ACETATE	400	ppm	TWA	ACGIH	
ETHYL ACETATE	1440	mg/m3	TWA	ACGIH	
ETHYL ACETATE	400	ppm	TWA	OSHA	
ETHYL ACETATE	1400	mg/m3	TWA	OSHA	

* SKIN NOTATION: Listed substances indicated with "Y" under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

Abbreviations: N/D - Not Determined N/A - Not Applicable

[redacted]

3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3882

ATTN: PURCHASE DEPARTMENT
RANDY STOLP

MATERIAL SAFETY
DATA SHEET

3M

8. HEALTH HAZARD DATA

EYE CONTACT:
Heptane and/or ethyl acetate liquid and vapors may cause irritation of the eyes. FC-3537 was found to be a mild eye irritant in animal tests (estimated Draize score of 6/110).

SKIN CONTACT:
FC-3537 will produce skin irritation with prolonged or repeated skin contact. FC-3537 was found to be a moderate skin irritant in animal tests (4-hour contact with semi-occlusion).

INHALATION:
Heptane and/or ethyl acetate may cause irritation of the respiratory system and temporary nervous system impairment. Symptoms of overexposure to heptane and/or ethyl acetate may include irritation of the nose and throat, dizziness, giddiness, weakness, fatigue, nausea, headache, stupor, loss of coordination, coma and lung damage. The toxicity of the spray of 8.5% FC-3537 solids in heptane was found to be in practically non-toxic range; 4-hour LC50(albino rats) was about 68 milligrams per liter or 14,628 ppm.

IF SWALLOWED:
Practically non-toxic via acute ingestion. Acute oral LD50(rats) was >5g/kg. If heptane and/or ethyl acetate are swallowed and vomiting occurs aspiration into the lungs may follow resulting in chemical pneumonia which can be fatal.

SECTION CHANGE DATES

PRECAUT. INFO. SECTION CHANGED SINCE MARCH 11, 1992 ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable

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EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*

SOURCE OF EXPOSURE LIMIT DATA:
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:
Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

SKIN CONTACT:
Moderate Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, itching, and dryness.

INHALATION:
Single overexposure, above recommended guidelines, may cause:

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD, THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Heart Effects: signs/symptoms can include arrhythmia, heart attack and death.

Single overexposure, above recommended guidelines, may cause:

Cardiac Sensitization: sudden heart stoppage due to a reflex effect on the nerves which control the heart. This effect usually occurs only after inhalation of concentrated vapors such as in intentional abusive sniffing of certain solvents and propellants.

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Anemia (decreased number of red blood cells or amount of hemoglobin): signs/symptoms can include prolonged weakness and fatigue.

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